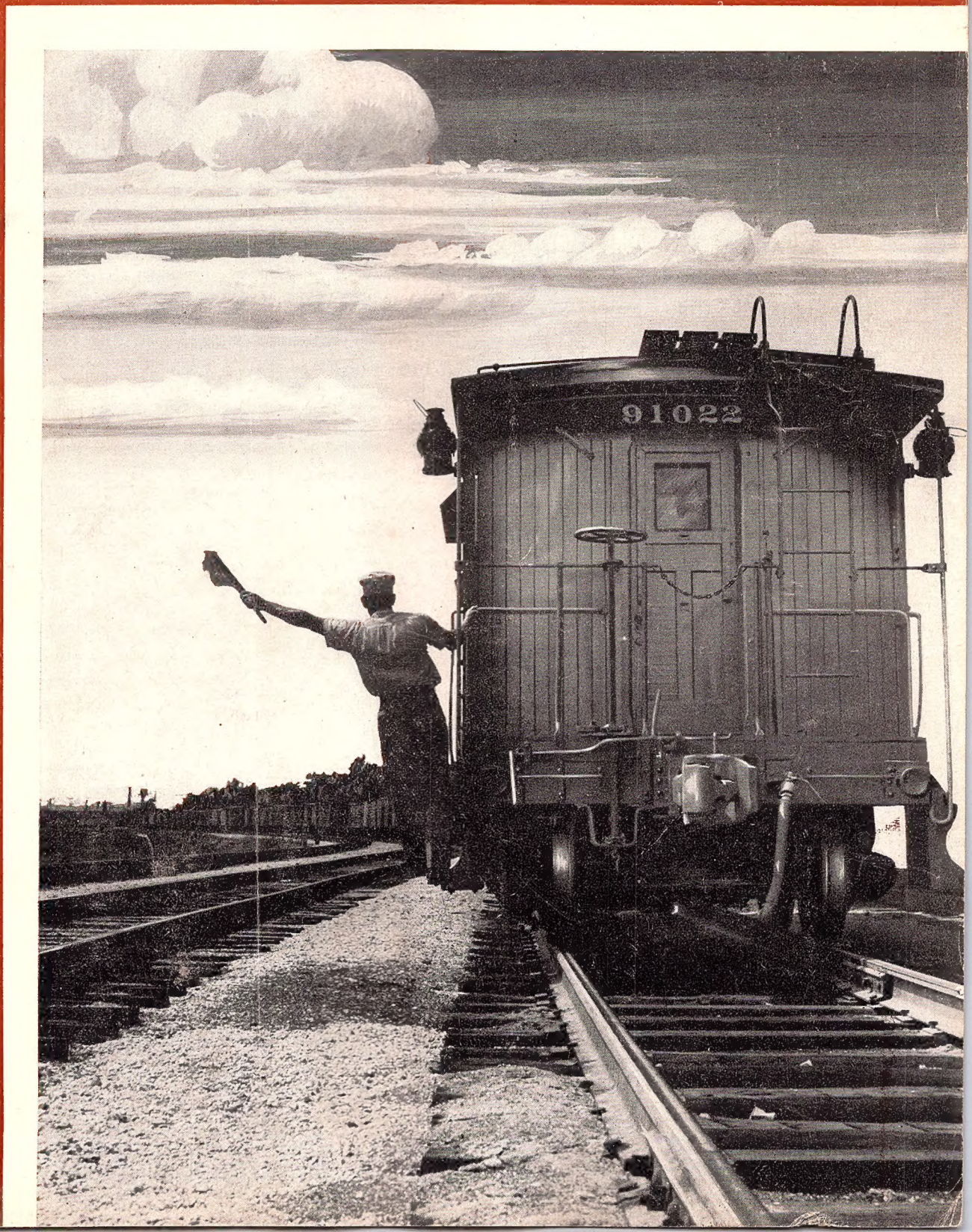
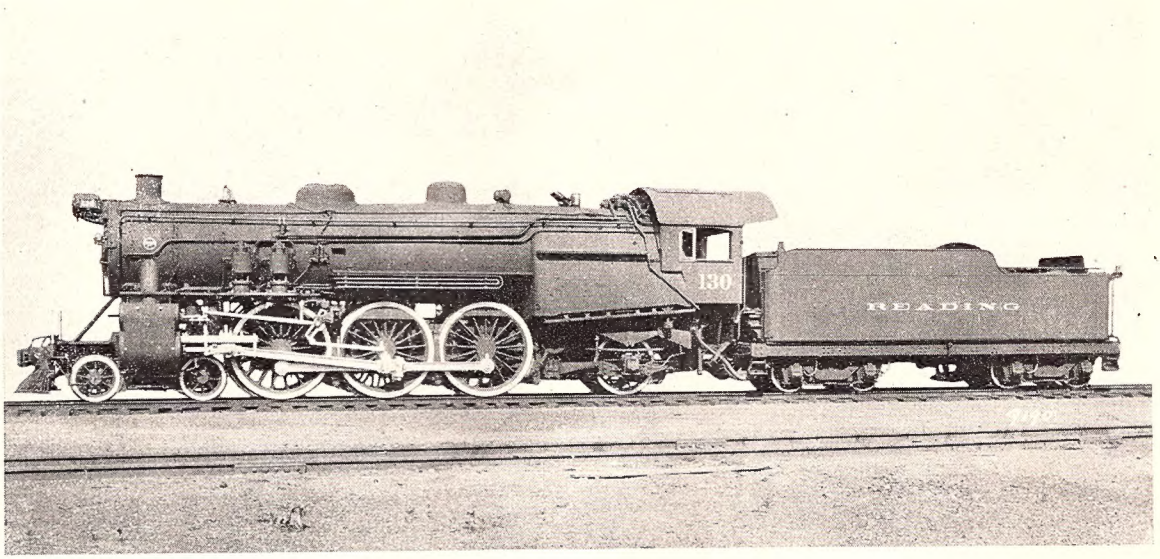
THE MODEL CRAFTSMAN

OCTOBER 1947
35 CENTS

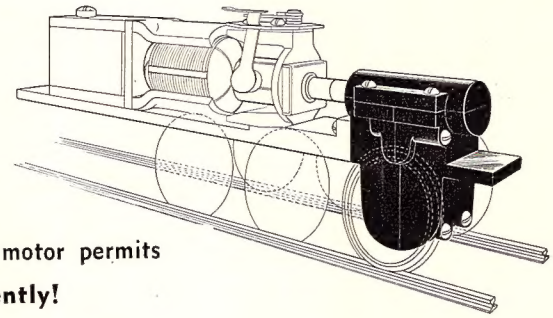




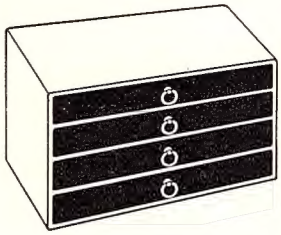
MANTUA'S NEW PACIFIC is worth waiting for!

Because it's going to be the finest locomotive of its kind that ever rolled out of our Woodbury plant! It will be true to scale, true in detailing and a true counterpart in **performance** of its prototype shown above. Here are a few of the highlights —

- 4-6-2, 80″ drivers
- Clean, brass boiler, all fittings added
- Die-cast frame and tender
- All parts cut to fit, no soldering required
  5 pole, 12 volt, 71 D. C. motor by Pittman,
- P-O-W-E-R to spare
- NEW, EXCLUSIVE hookup of gearbox and motor permits replacement or repair of either — **independently!** All of Mantua's large locomotives will have this **time** and **money saving** feature.



DELIVERY EARLY FALL — ORDER NOW



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MANTUA METAL PRODUCTS CO.

"The ALL-Metal Line"

WOODBURY HEIGHTS NEW JERSEY

SEVEN OUT OF TEN?

Mr. Hertz certainly does know his tinplate and he writes some wonderful articles on the subject. His book, "Riding the Tinplate Rails," is a great book and he handled his subject in a marvelous manner. I'm looking forward to his forthcoming Ives book with a great deal of anticipation. I'm an Ives fan myself. I started out with Ives equipment in 1914 and nothing has been produced to beat it even yet.

If you continue the fine tinplate articles by Louis Hertz, I'll be a booster for your magazine. The owner of a large hobby store told me that seven or eight out of every ten model railroaders are tinplaters so I think we deserve more space in your magazine. Practically all railroad articles in it are for scale railroaders with the exception of the Hertz articles. . . . *Gordon M. Potter, St. Joseph, Mich.*

HIS SUGGESTION

What do you say, let's have a few more plans on building some model railroad scenery and cars—preferably 027 gauge or 3/16" to the foot. . . . *Francis Oravec, Johnstown, Pa.*

MARINE SPEAKS UP

The Marine Corps is a great service, a real exciting life, but once in a while this excitement gets a little boring. At times like this, THE MODEL CRAFTSMAN is a boon companion. Before enlisting, I built several models and during the past year, living out of a barracks bag most of the time, I built 14 complete units in HO gauge. When my present hitch is up I'm going to have one of the biggest and best layouts in my home state of West Virginia, even if it takes the rest of my life.

I read two other model magazines but I get more information from your construction articles than from the other two put together. Keep up the good work. . . . *Sgt. Paul Young, San Diego, Cal.*

MAG IS TOPS

I was very glad to see the big increase in the railroad section, its real heart-warming news. Model Railroading is my big joy. (How well the Missus knows it, too!) The cut-away of Warren Crater's articles are a big help to me. I can visualize the complete engine at a glance and know what steps to take first. Tell Mr. Crater to keep up the good work.

My layout is in O gauge and I would like to see more rolling stock and ideas in this gauge, especially a practical turntable that actually works. Working all equipment remote-control is much more realistic than jumping up and leaning over the roundhouse to turn the engine around.

Here's to a bigger and better railroad section, you're on the right track. P.S. I've been a steady reader of your swell mag. since 1938. . . . *Haawken Rogney, Denver, Colo.*

LAWRENCE ON THE BALL

Just received the September issue of M. C. and at last someone has tipped me off about painting rolling stock. L. A. Lawrence is to be congratulated on helping us out. A lot of us know how to build models, but don't get that real finised look which we strive for. From now on I won't rush those all important last few steps. I always took it for granted that the paint out of the can was OK, and the fault was mine in the application.

An article on the painting of a locomotive would be a big help. I'll appreciate it if you can pass along more information about finishing the locomotive with the gloss taken off and the running of paint done away with.

Keep up the good work. . . . *Arthur Connolly, Ridgefield, N. J.*

TAKE A BOW

May I encroach upon your generosity to spare me a small space in "Safety Valve" to express my deep appreciation for the Best and most up to date Model Mag. ever published.

We under the "Southern Cross" have no Bullets to fire at the Editor, and though he has a very hard job he endeavors to please everyone. I personally get quite a number of Model Magazines but none surpasses "Model Craftsman" and though I have been modelling for some 20 years, M. C. is still religion to me.

Wishing the Mag. further SUCCESS and a greater circulation outside the United States. . . . Don MacGregor, Orakei, New Zealand.

THE MODEL CRAFTSMAN

RAMSEY NEW JERSEY

Including "THE MODELMAKER"—Est. 1924 and MINIATURE RAILROADING Magazine

EDITOR AND PUBLISHER *Charles A. Penn*
ART DIRECTOR *Walter A. Stalter*
ADVERTISING MANAGER *James H. Thompson*
RESEARCH EDITOR *Louis H. Hertz*

Field Editors: Railroads—L. W. Sagle, H. L. Adams. Race Cars—C. A. Penn.

VOL. 16, NO. 5 OCTOBER, 1947

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Published monthly by Model Craftsman Publishing Corp., 1309 Noble St., Philadelphia 23, Pa. Editorial, advertising and executive offices, Ramsey, N. J. Charles A. Penn, President and Treasurer. Helen M. Penn, Secretary. Entered as second-class matter May 3, 1945 at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Price 35c per copy. Subscription $4.00 per year in the United States, Possessions and Canada; Foreign and Pan-American subscriptions $4.50 per year. Manuscripts not accompanied by return postage cannot be returned. The contents of this magazine must not be reprinted without permission.
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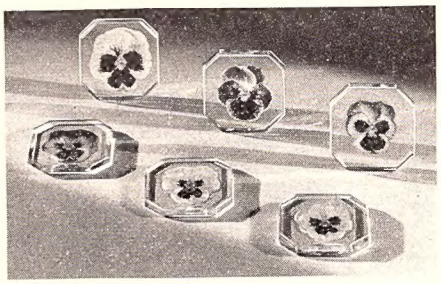

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RAILROAD CLUB NEWS

SOUTH BEND, IND. The South Bend Society of Model RR. Engineers are hosts for the Mid-West Regional N.M.R.A. Convention to be held in South Bend November 1 and 2. An interesting schedule is being prepared to make it a "bang-up" affair.

Registration begins at 10:00 A.M. on the first and in the afternoon a unique rail fan trip has been arranged. Many interesting sites will be visited including the largest inland coaling docks in the country, an operating car dump, a New York Central roundhouse with crews working and a large array of N. Y. C. steam and diesel power. All points of interest will be available to inspection and photography. In the evening, a banquet will be followed by the operation of the Lake States and Eastern RR, an HO layout owned by the society. A business meeting will be held on the second and will be followed by an open house to be held in the society's club rooms.

All model rails are cordially invited to attend the convention. Any one interested should contact the Secretary of the Society, 1702 W. Washington Ave., South Bend 21, Ind.

STAMFORD, CONN. A show is in the making for the Stamford Model R. R. Club. Plans are slowly progressing but the shortage of electrical material has held up work. 11,000 sq. ft. of space are available for their O gauge layout and 2,000 ft. of track have already been laid. Right now they are busy installing four new switchboards and changing the layout over to DC.

The club is located in the St. John's Episcopal Church, Main St., and new members and visitors are welcome at any time.

DETROIT, MICH. At their annual business meeting, the following officers and directors were elected for the Detroit Model R. R. Club: W. L. Tomlinson, Pres.; C. M. Reik, V-Pres.; J. P. Seehaver, Sec.; and E. Hammond, Treas. In addition, C. W. Dash, K. Comstock and W. J. Maguire were elected to the Board of Directors.

As the club's present layout uses only a third of the space available, a complete renovating job is in progress. Nothing definite has been decided as yet except that it will be O gauge, two-rail and probably two battery. Some material has already been purchased including 100 switch machines, 19,000 ft. of wire and 2,000 terminal posts, other equipment is on order.

"Pop" Beck, Tommy Tomlinson, "Ripper" Collins and Bob Bondi attended the National Convention of the N.M.R.A. and all reported a splendid trip and a great time in Calif.

ROANOKE, VA. A club has just been organized in southwestern Virginia called the Roanoke Assn. of Model Railroads. As yet a suitable location for the layout has not been found but it will be both HO and O gauge. To start, at least twenty locomotives will be available and an undetermined number of cars. The following officers were elected at the first meeting: Lucius Johnson, Pres.; Wm. Penn, V-Pres.; Frank Fisher, Sec.; and Sam Hairston, Treas.

Anyone interested in the club are invited to contact the Secretary, Box 1967, Roanoke, Va.

NEW HAVEN, CONN. The eleventh annual exhibit of the New Haven Society of Model Engineers will be held on the weekends of Oct. 31 to Nov. 2 and from Nov. 7 to 9. On Friday nights the exhibit will be open from 7 to 10 PM and on Saturdays and Sundays from 2 to 9 P.M. The entire second floor of 90 Court Street Building will be devoted to the exhibit. It has been very popular and well-attended in the past, you won't want to miss it.

HAGERSTOWN, MD. In order to maintain a high level of interest during the summer months, the Hagerstown Model R. R. Club has been visiting other Clubs within a radius of 125 miles. Just recently, 21 members visited the Altoona Model Railroad Club. Upon arrival, both clubs delved into a turkey dinner and then made a pre-scheduled trip through the world's largest roundhouse and the nearby installations of the Pennsy. The advance arrangements made by Mark Harrison went off perfectly. After a thorough inspection, the boys returned to the Altoona Club House where the balance of the day was devoted to the operation of scale model trains. The Altoona Club has an extensive O gauge layout, now in various stages of construction.

YORK, PA. The Miniature Railroad Club of York will be hosts to the Mid-Eastern Region Convention of the N.M.R.A. on October 11 and 12. An interesting weekend is assured. After registration, The Pennsy and the M. & P. & Western Maryland yards will be visited returning in time to see the Club's OO and HO layouts in operation. After the banquet, a meeting will be held of interest to all members. On the 12th, a fan trip will be made to Baltimore on the famous M & P, a photographers dream.

SAGINAW, MICH. The Saginaw Model Railroad Club is having an exhibit of equipment at their County Fair in an effort to arouse new interest in that section of the country. The Club recently moved its headquarters to 708 N. Washington and a new layout is still in the "works". Anyone in the Saginaw area interested in joining this club should contact Clarence Avery, he will give you the scoop as to time and date of future meetings.

SAN DIEGO, CALIF. The San Diego Model R. R. Club recently wound up a four day display at a Hobby and Art Show sponsored by their city. Their dis-

(Continued on page 50)

SUPPLYING THE NATION'S HOBBYISTS FROM THE SAME ADDRESS SINCE 1890

CORR'S

Casco Motor Tool..W/Acces..(Above)..	$22.50
Dremel Moto Tool Kit..W/Acces	23.50
Burgess Deluxe Vibro Tool..W/Acces..	16.50
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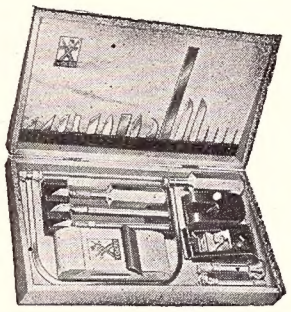

No. 85 X-acto Tool Chest—3 all-metal knives; assortment of blades; saw; sander; stripper; planer; 2 drill holders; 10 drills; 6" steel ruler; complete in wooden chest, $12.50. (Illustrated)

X-ACTO #1 & #2 Knife.....	$ .50
#51 and #52 Knife	1.00
#83 Deluxe Knife Set.....	5.00
#62 Double Knife & Blades.....	2.00
#80 Whittlers Knife Set.....	2.00
#84 Small Tool Chest	7.50
#77, Gouge Set	3.00

Other X-Acto tools available are: Pliers, Protractor, Tweezers, Hammer Set and those items contained in #85 Chest.

RAILROAD ACCESSORIES

Our stocks are rapidly becoming complete as production is increasing. Most all items for "O", "OO", "HO" are now available. Full line of Mantua, Varney and Walther's are in stock. Whatever you may see advertised elsewhere in this magazine, the chances are we will have it.

Varney Power Trucks "HO"	$11.50
Pittman Power Pack	17.75
Challenger Switch Machine	2.50
Kasiner "O" Stream. Pullman (Comp.)	8.50
Kasiner "O" Stream. Coach (Comp.)..	9.50
Kasiner "O" Baggage-Mail (Comp.)..	8.75
Kasiner "O" Duplex Pullman (Comp.)	8.95
Indianhead Switch Machine	1.25

"HO" CAR KITS

Varney	$ 1.90
Lehigh	2.50
J-C	1.35
Ideal	1.75
Mantua	2.95
VARNEY'S New "O" Gauge B. & O. Ten Wheeler Loco Kit	$100.00
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Varney Dockside Switcher.....	$15.00
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Rogers "29"	B	15.75
Rogers "Ram"	B	9.95
Cannon "300"	B	19.50
Torpedo	B	18.50
"OK" "29"	B	18.50
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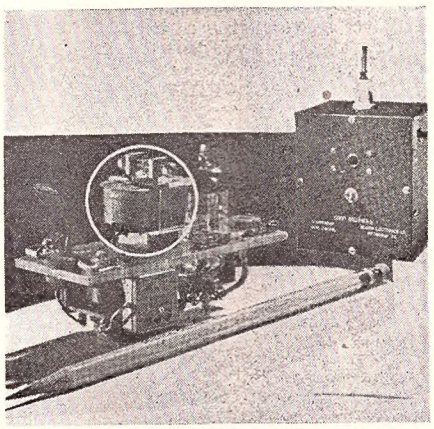
Madewell	C	18.00
Cannon "358"	C	21.50
Fleetwind	C	24.75
Rocket	C	22.50
O'K Super 60	C	21.00
Atwood JH	C	23.50
Pacemaker	C	24.95
Air-O	C	24.95
McCoy RC or Air.	C	35.00
Hornet RC or Air.	C	35.00
Ohlsson 60	C	18.50
Cyclone GR-A Dual Ign.	C	23.40
Cyclone GR-A Single Ign.	C	22.65
Minijet		35.00
O'K CO-2 Engine		7.50

We have a complete stock of all leading gas motor parts.

CHAMPIONSHIP RADIO CONTROL



★ SMALL ENOUGH for Class B. Can be installed in control line models. The last word in scientific plane control by radio! Equipment furnished includes transmitter in black crinkled finished metal case size 4 x 4 x 6", range approximately 2 miles; receiver size 4 x 1 1/16 x 2¾" high; weight 5 ounces, operates on 4 Pen-Light batteries (2 ounces); 1-45V, "B" Battery (8½ ounces); and escapement unit size 2¼ x 1⅛ x 1" high, weight 1 ounce (not shown). Also useful in model railroading for radio train control **$59.50**

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Cyclone	4.95
Atomic	3.50
Super V Shark	4.95
Perky	2.00
Miss Behave	3.95
Miss Behave Streamline	4.95
Baby Miss Behave	2.75
Bipe	3.95
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Meteor	8.95
Ercoupe	7.50
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Presto Liner	5.95
Stardust	10.00
Tyro	3.50
Capitol Navion	7.50
Whirlwind .....Jr. $2.95, Sr.	7.95
Competitor	5.50
A. J. Fireball	10.00
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Zing	4.95
Smart Alec	6.95

PLUS MANY OTHERS

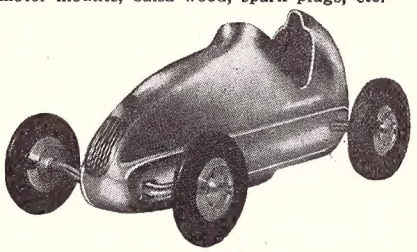
FREE-FLIGHT KITS

Interceptor	$ 3.95
Zipper "A".....$1.95....."B"....	5.95
Sailplane	8.95
Skyrocket	2.95
Flamingo	9.95
Skybo	6.95
Piper Cub "A" .....$1.95....."B"....	4.50
Playboy Jr. .....$3.25.....Sr.....	6.00
Baby Playboy	1.00
Runt	2.50
Buccaneer B Spec.	3.95
Honey "B"	3.95
Aeronca "B"	4.95
Buzzard Bombshell	9.95
Humdinger	3.95
Super Quaker	7.00
Westerner .....A $3.50, B $4.50, C	7.95

PLUS MANY OTHERS

GAS MODEL ACCESSORIES

We maintain a large supply of all gas model accessories. Your selection of: props, coils, condensers, wire, dope, battery boxes, timers, motor mounts, balsa wood, spark plugs, etc.



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Dooling (illustrated)	$45.00
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Complete stock Wheels, Tires and Parts

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All Star Cape Cod	$3.50
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All Star Sail King	2.00
Comet Gypsy Sloop	1.00

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Marine Sea Mortar	$4.00
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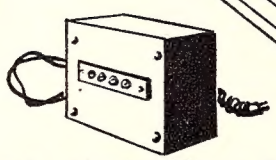
Available in limited quantities for immediate shipment, Senco's sensational sound tender puts realism in scale model and toy train sets. Actual *real train* sounds are transmitted through the tender as train roars around the pike. Tender fits 0, 027 or 072 gauge track and couples with latest Lionel Automatic Couplers. Includes ¼" Scale Model Pennsy Tender and Mixer Box. New Model 148 only $19.95. See your dealer and order now to assure early delivery.



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3 Tube Phonograph with Sound Transfer Switch—Juke Box volume, quality tone.

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Set of 3 different recordings—A complete library for only $4.25

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Couplers: Dummy type that will couple and uncouple automatically with Lionel's newest couplers. O gauge.

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Dealers: Order Complete Display Set from your distributor. Retails for $49.90. It's Sensational.

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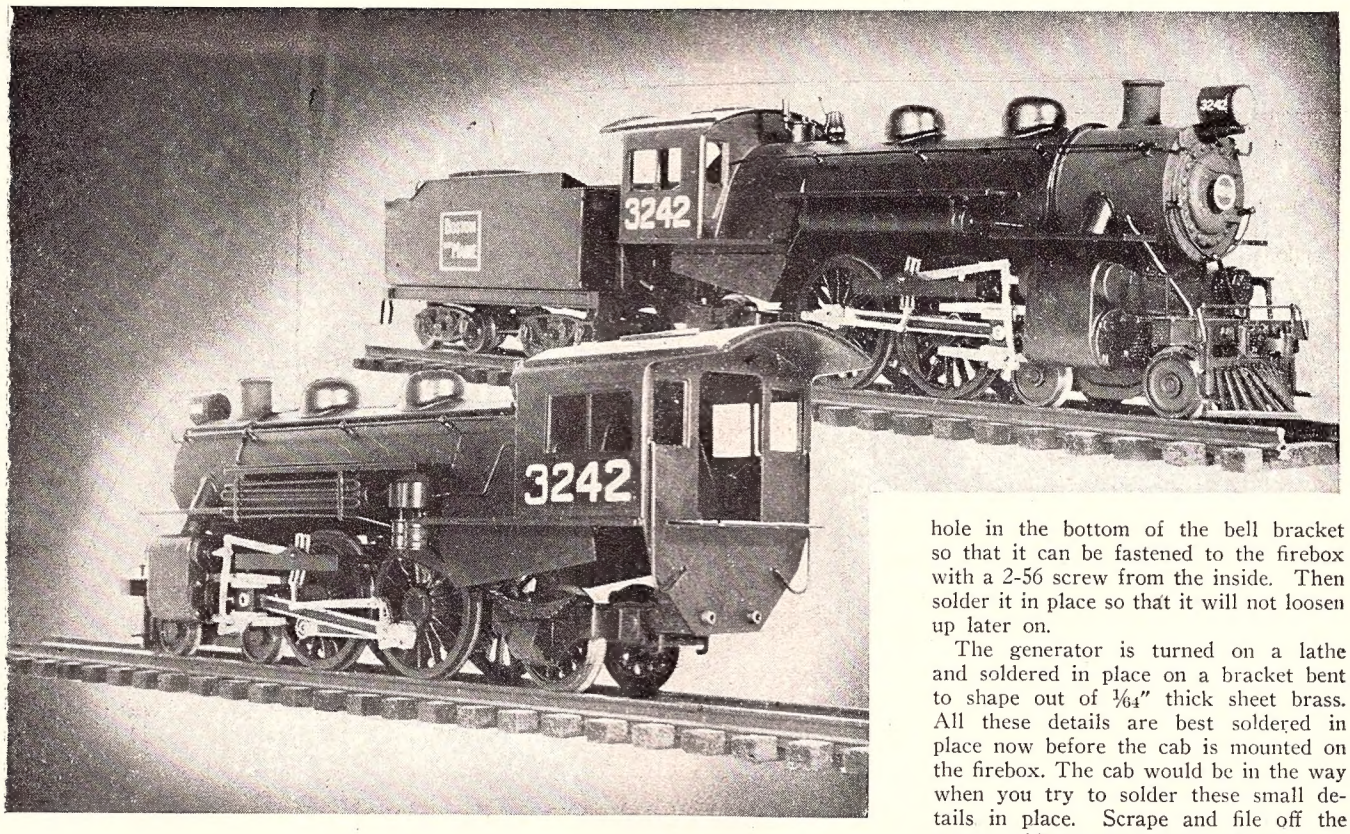


Boston & Maine Atlantic

PART III

By LEWIS AUSTIN

THE boiler of the Boston & Maine Atlantic is straight which makes it easy to model. I used a piece of 1⅝" outside diameter by 1⅜" inside diameter brass tubing for the boiler on my model. It was turned down to 1½" diameter at one end for the smokebox and the rest of the boiler was turned down to 1 9/16" diameter. The back end of the boiler was also turned down to 1½" diameter as shown on the drawing. This forms a flange so that the firebox can be soldered to the boiler securely.

The firebox is cut to shape out of 1/32" thick sheet brass. Bend the firebox to shape and be sure that it flares out at the bottom. The firebox does not flare out so much on the prototype but it is necessary on the model to clear the motor. When the cab and running boards are mounted on the boiler the flare of the firebox will not be so noticeable.

Solder the firebox in place on the flange on the rear of the boiler.

The boiler front is a casting that can be purchased in a hobby store. Try to get a bronze casting so that the details such as the handrail and marker light brackets can be soldered to it. Also if it is possible, get a boiler front casting with the headlight bracket cast right on it, if not you will have to cut out and bend a bracket out of 1/32" thick sheet brass. The bracket will then have to be riveted and soldered to the boiler front. Be sure that you fasten the bracket on securely, for being mounted on the front end of the boiler makes it very vulnerable. The round number plate in the center of the boiler front can also be put on now before the boiler front is mounted on the boiler.

The stack and domes on my model are castings but they could also be turned on a lathe out of brass rod. The stack will have to be drilled out to fit the head of the long 10-32 screw that holds the boiler to the loco chassis. Solder the stack in place on the smokebox. The cast domes have a fillet already cast on the bottom where the dome fits the boiler. All that is necessary is to file the radius on the bottom of the domes so that it fits the curvature of the boiler and then solder the domes in place. If you turn the domes on a lathe, the best way to mount them would be to drill and file large holes in the boiler so that the domes can be fitted right in them. This will hold the domes in place while you build up a fillet of solder around the bottoms of the domes.

The small dome on the firebox is simple to make. Two short pieces of 1/16" brass rod are soldered on the top of this dome to represent the pop valves. The whistle is also soldered in place on this dome.

The bell and bracket can be purchased. I turned the bell to shape on a lathe and cut the bracket out of 1/32" thick sheet brass. The bell is mounted on the bracket with a piece of #60 wire. Tap a 2-56 hole in the bottom of the bell bracket so that it can be fastened to the firebox with a 2-56 screw from the inside. Then solder it in place so that it will not loosen up later on.

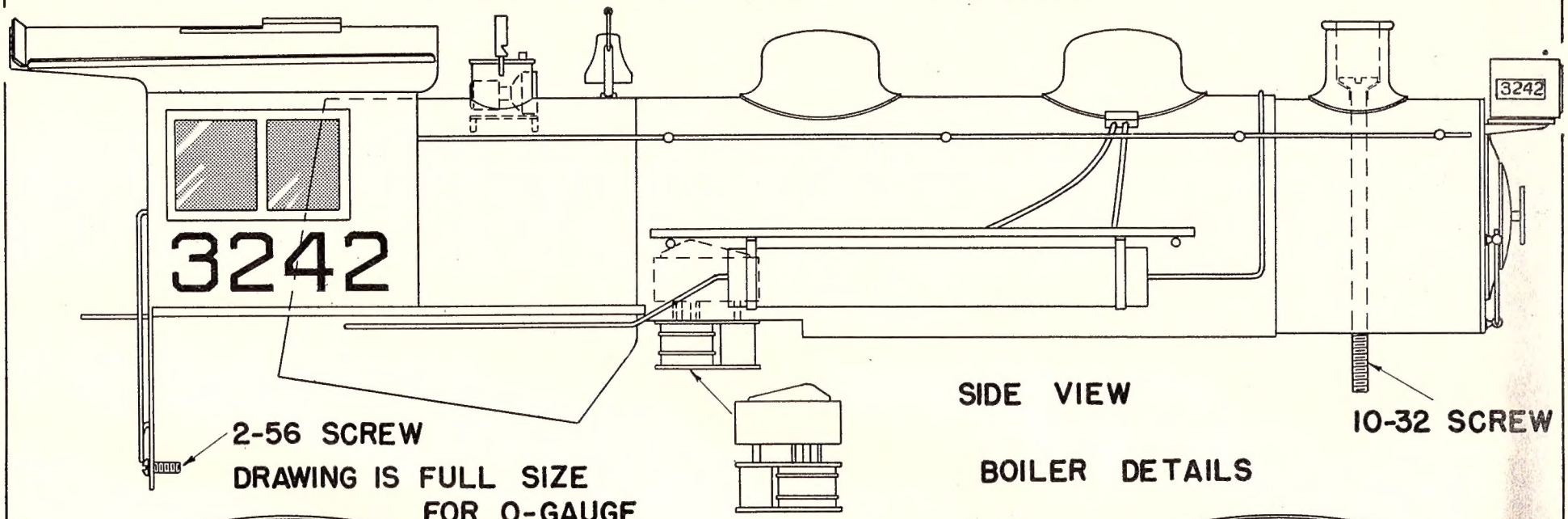
The generator is turned on a lathe and soldered in place on a bracket bent to shape out of 1/64" thick sheet brass. All these details are best soldered in place now before the cab is mounted on the firebox. The cab would be in the way when you try to solder these small details in place. Scrape and file off the excess solder as you go along for later on you may not be able to reach the solder.

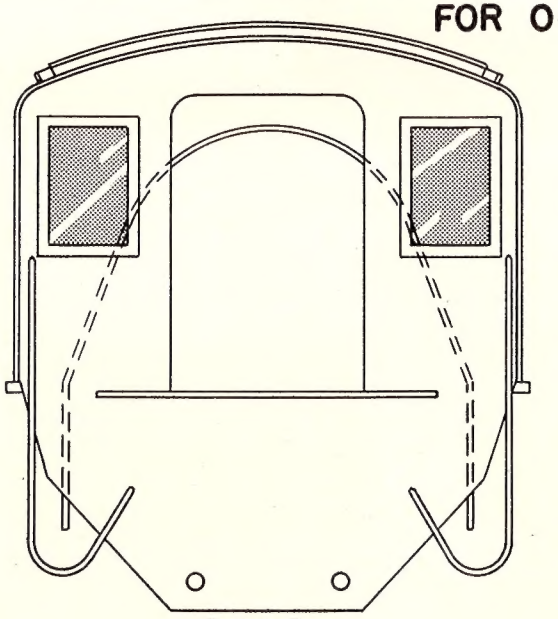
The cab is made entirely out of 1/32" thick sheet brass cut to the shapes shown by the full size templates on the drawing. First it will be best to cut out and bend to shape the piece forming the cab sides and roof. Then it will be easy to cut out the front and rear ends of the cab to fit the cab roof and sides. The window sash and doors are represented by pieces soldered behind the cab sides and ends. The best way to cut out the door and window openings is to use a small flat chisel. Hold the piece in a vise and resting the chisel on top of the vise jaw chisel out the openings. The edges of the openings can then be cleaned up with a file. The cab parts are soldered together from the inside. In this way there will not be too much excess solder to scrape off the outside of the cab. The hatch on top of the cab is cut out of 1/16" thick brass. Bend it to fit the curvature of the cab roof and solder it in place.

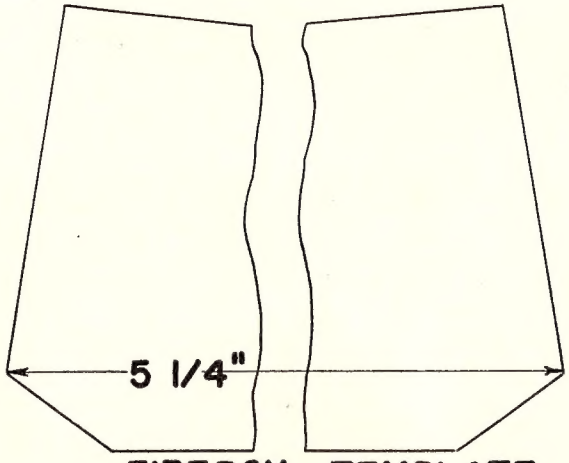
The rain gutters on the cab roof are simply strips of 1/32" thick sheet brass soldered in place. Do not try to solder on a thin strip, instead cut the strip wider and longer than is necessary. This will offer you something to hold the strips with while you are soldering them in place. After they are soldered in place they can be filed until they are about 3/64" high. The excess length can be cut off. The curved gutter on the end of the cab roof is a little more difficult to put on. Cut the strip about 1/8" wide and then bend it to the approximate shape of the cab roof. This will have to be done by the trial and error method. Note that the rain gutter slopes back at about a 45 degree angle. After it is fitted to the shape of the cab roof, solder

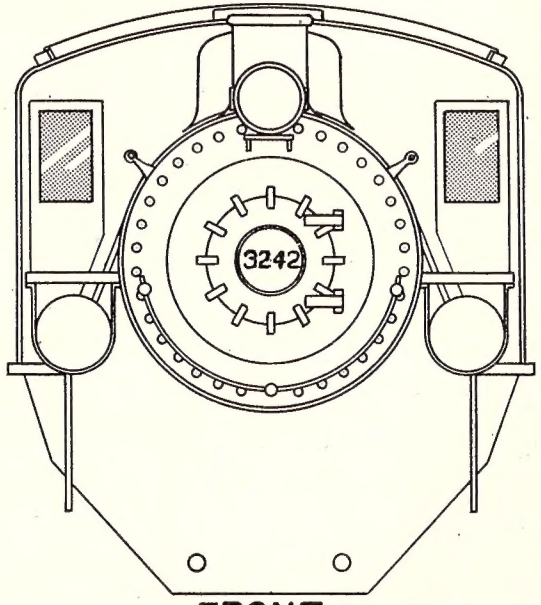
(Text continued page 46)

BOSTON AND MAINE ATLANTIC





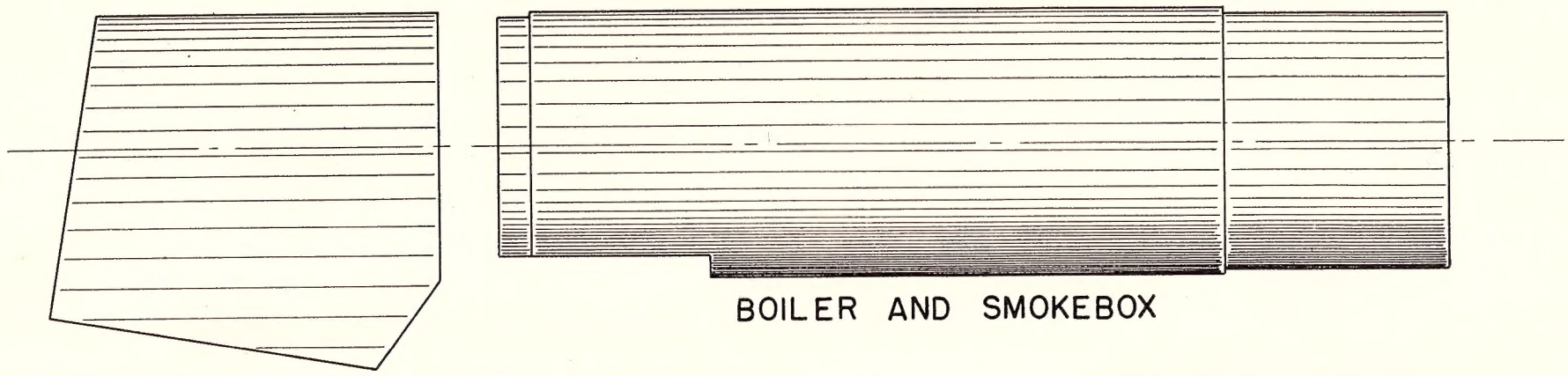




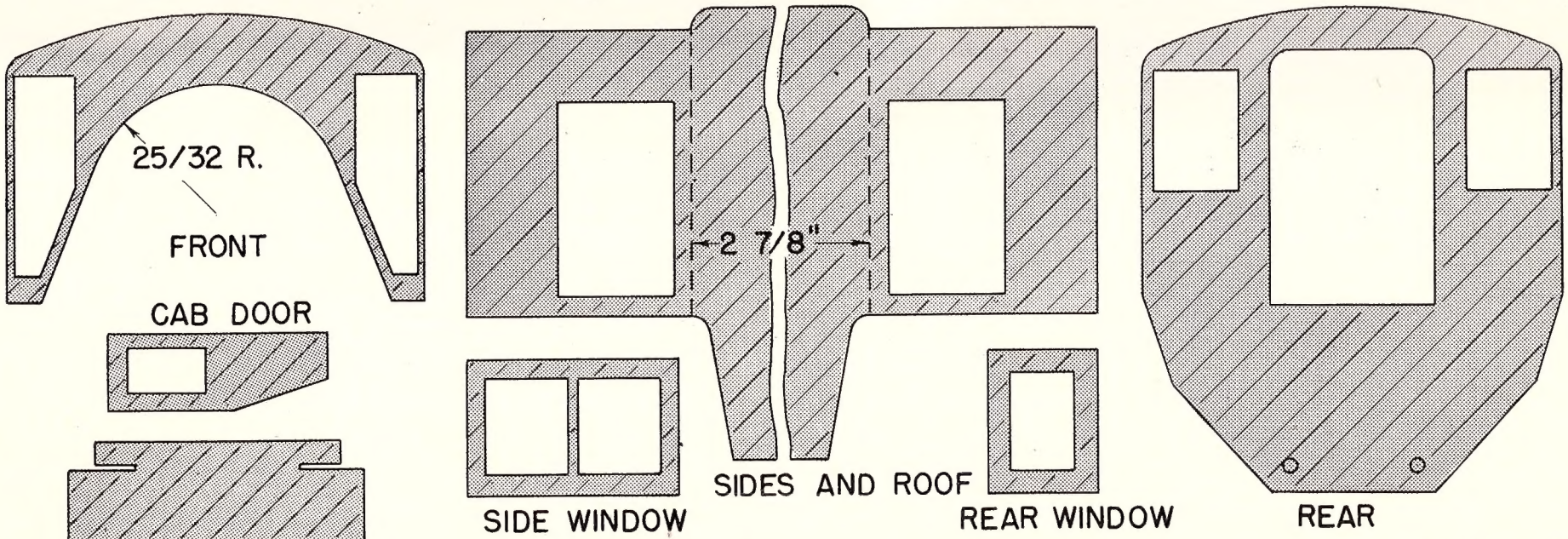
L. AUSTIN

BOSTON AND MAINE ATLANTIC

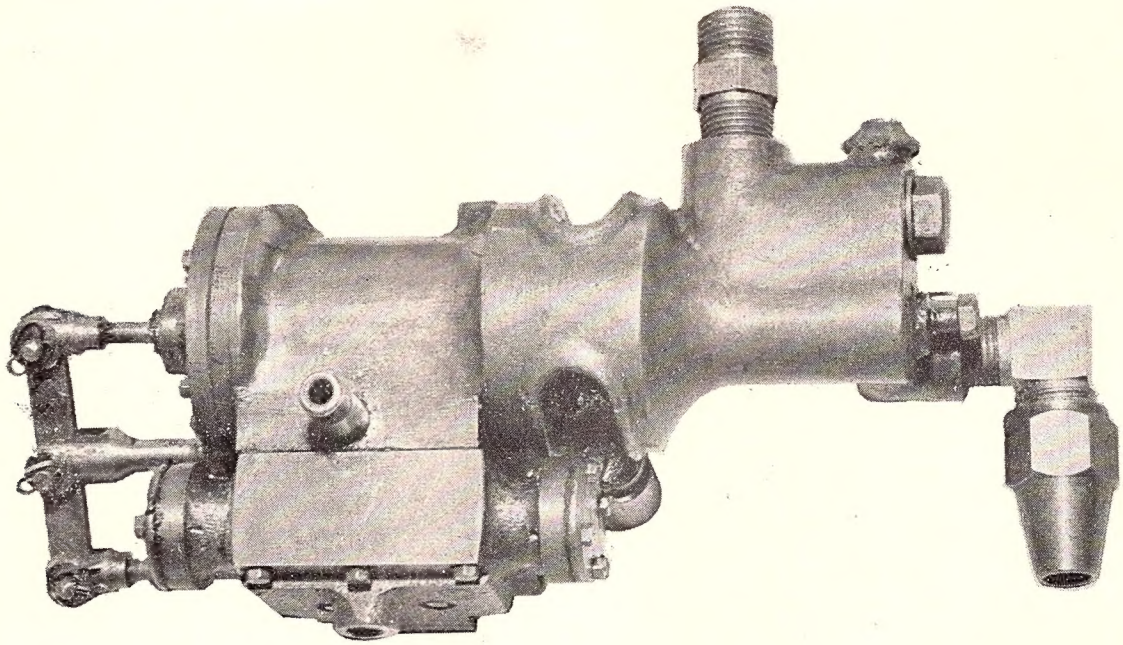
O-GAUGE



CAB TEMPLATES



L. AUSTIN



STEAM DRIVEN FEED WATER PUMP

By LITTLE ENGINES

THIS pump was designed for, and is in use on ¾" and 1" steamers and, of course, can be used to feed stationary boilers. The steam cylinder pump body is in one casting so that once accurately bored, the pump and steam cylinder are always in perfect alignment, which makes free travel of piston and pump ram.

The first operation in machining the casting will be to establish the centerline through the steam and pump cylinders and next scribe the port face finish line parallel to the cylinder centerline. Finish port face, allowing a couple of thousandths for the final grinding of this face for the main valve to work on and be steam tight.

With the port face turned, milled or shaped according to the machine tools available, clamp the port face to an angle plate mounted on the lathe face plate. Center the steam cylinder true and bore it to a finish and finish the bore flat at the end of the steam cylinder. Next, while still on the angle plate, drill for packing glands with a 15/32" drill through the bottom of the steam cylinder and into the pump cylinder to a depth of ¼". Use a ½"—27 or other convenient tap to cut the thread for the steam cylinder piston stuffing box and thence into the pump cylinder. Now thread a piece of ½" round brass rod for the piston gland, do not drill it for the rod until you screw it into place and lock it tightly with a few prick punch indentations around the edge of the thread. Turn up the piston and pump packing nuts. Thread and screw into the glands. Run a ⅜" drill right through gland and nuts, thus they will be in line with the centerline of the cylinder and pump body. We do not want any "binds" here.

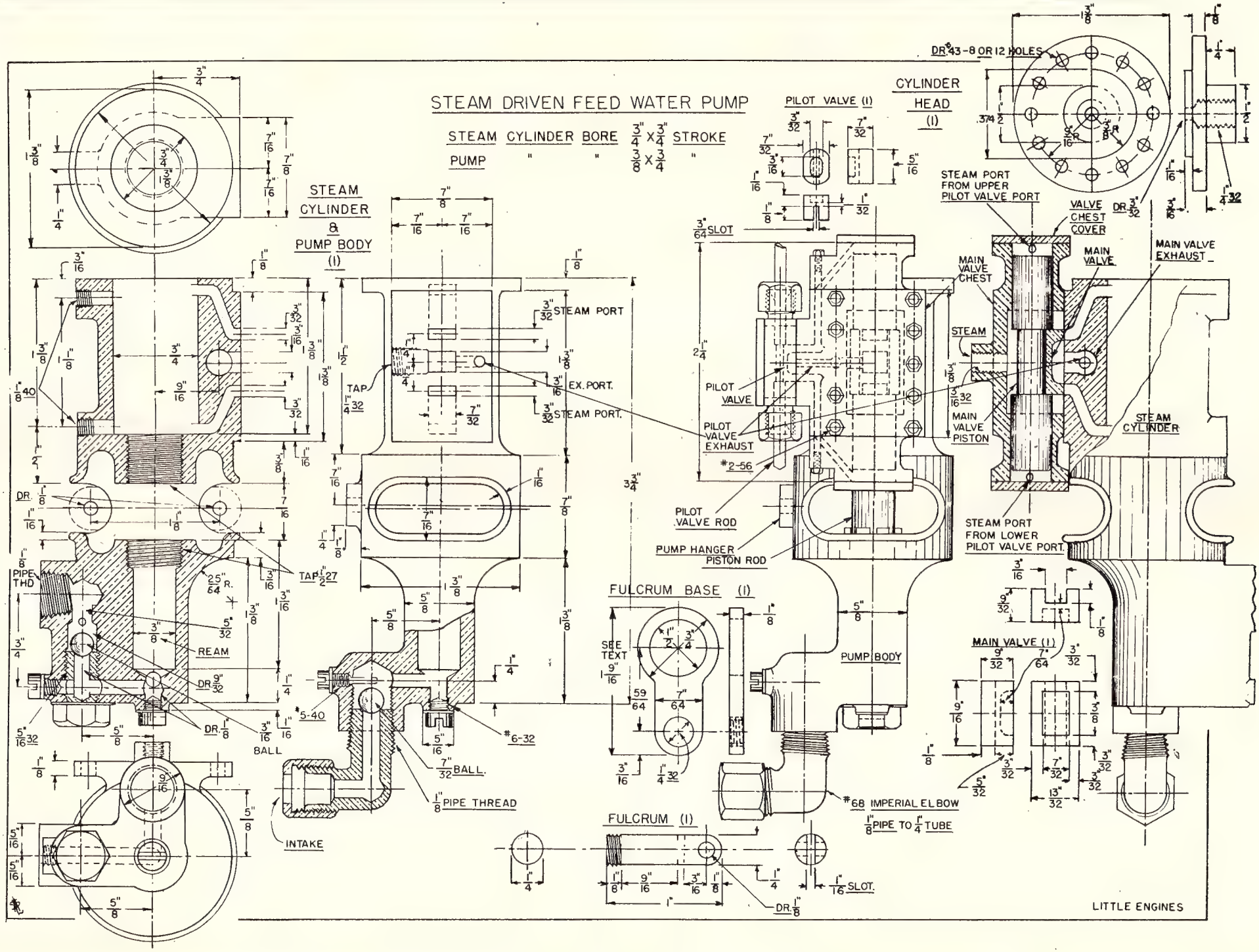
Remove the casting from the angle plate and drill the water passages and valve cages as shown in the prints. Tap as indicated. Make up the discharge valve stop, and tap for the 5/32"—32 plugs shown. Drill "R" and tap for ⅛" pipe at intake and discharge. The holding bracket at the back of the pump spacer can now be finished so that the casting will stand vertical when bolted in position on the engine. Drill the two eighth inch holes in the brackets, space these according to the print or to your own convenience. Drill the cylinder drain plug holes #38 and tap ⅛"—40 (5-40). Use a plug tap here for tightness.

The cylinder head is finished next, as shown at the upper left corner of the plans. Start by chucking central, stuffing box outward, drill through with a ⅛" drill and then drill to the depth of the packing gland 9/32" and tap ¼"—32. Now take a ¼" piece of round steel or brass rod, chuck it central and thread ¼"—32. Have the ¼" rod long enough so that you can screw it into the packing gland and still have enough rod left to allow you to chuck it in the lathe. Screw the rod into the packing gland, remove head from chuck and then chuck the rod central and finish the contact face of the head. This procedure should result in the packing gland's being central and at right angles to the cylinder head which is what you want in order to avoid misalignment of the trip rod. When the head facing operation is done, run a ⅛" drill through the head and into the holding rod and then finish to shape shown on the assembly plan. No detail is shown to cover the gland because of its obvious simplicity.

While you have the piece chucked is a good time to scribe the radius for the cylinder head screw holes. Do this with a sharp pointed lathe tool. Suit yourself as to whether you want eight or twelve holes for appearance and divide the scribed circle accordingly. You can use the head as a jig to drill the cylinder for the #2-56 screws that will hold the head to the cylinder. One of the head screws will serve to hold the fulcrum base to the cylinder head. If your screws will not line up the fulcrum when you come to it, just fasten the fulcrum assembly in place, mark and saw the slot in the fulcrum accordingly. We have digressed from our procedure somewhat, but it seems necessary to mention the alignment of the fulcrum at this point. There will be more on this subject when we get to the fulcrum itself.

Next in order is the main valve chest. Start by chucking the casting so that we can drill the main valve piston hole through from end to end. Use a letter "U" drill. In the final operation, a ⅜" reamer, preferably the spiral type, is to be run through this hole. Thus after the cavity has been milled and the steam passages have been drilled, all burrs that would otherwise be present will be removed by the reamer making for smooth operation of the main valve piston. Next comes the main valve cavity. This is a milling job and to begin with, after laying out and establishing our centerline, drill a 7/16" hole in the casting to a depth that will clear the main valve piston hole. After drilling, insert a 7/16" end mill and lengthen out the hole to 1" after which use a ⅛" end mill in the corners. While the casting is set up for this job of milling finish, face the bottom

(*Continued on page 48*)


STEAM DRIVEN FEED WATER PUMP
STEAM CYLINDER BORE 3/4" X 3/4" STROKE
PUMP " " 3/8 X 3/4 "
STEAM CYLINDER & PUMP BODY (1)
CYLINDER HEAD (1)
PILOT VALVE (1)
DR #43-8 OR 12 HOLES
STEAM PORT FROM UPPER PILOT VALVE PORT
VALVE CHEST COVER
MAIN VALVE
MAIN VALVE EXHAUST
MAIN VALVE CHEST
STEAM
STEAM CYLINDER
MAIN VALVE PISTON
PILOT VALVE
PILOT VALVE EXHAUST
PILOT VALVE ROD
PUMP HANGER PISTON ROD
STEAM PORT FROM LOWER PILOT VALVE PORT
3/64 SLOT
3/32 STEAM PORT
3/16 EX. PORT.
3/32 STEAM PORT.
TAP 1/4-32
TAP 1/2-27
PIPE THD
REAM
DR 9/32
DR 1/8
#5-40
#6-32
BALL
7/32 BALL.
1/8 PIPE THREAD
INTAKE
FULCRUM BASE (1)
SEE TEXT
PUMP BODY
#68 IMPERIAL ELBOW
1/8 PIPE TO 1/4 TUBE
FULCRUM (1)
1/16 SLOT.
MAIN VALVE (1)
LITTLE ENGINES

Detailed Caboose

This is the first set of self descriptive plans on the construction of a model caboose of the olden days. Additional plans will appear next month to complete the article.

By JAMES STOUGH

WHENEVER your rolling stock is inspected, it is always the smaller details that catch the eye and get the praise. Undoubtedly you have seen rolling stock of which the owner was very proud, but you noticed was out of proportion and had several imperfections. Naturally you do not want to offend the builder, so you say nothing. You congratulate him, but in the back of your mind you think of the way *you* would have done it.

Are your models frankly criticized? There are very few perfect mdels in existence, but with a little extra time and effort, you can come close.

Many modelers overlook the minute details when building, those all important details that add untold realism to the finished product. Great care should be used in *all* operations, *all* parts should be accurate and to scale.

Self-descriptive construction plans are shown on the following pages of a highly detailed caboose. Additional plans will be shown next month to complete the model. This would be the ideal project for a beginner, as all details are clearly shown. An experienced man should be able to pick up many valuable pointers.

This model and drawings are the work of Jim Stough of Pittsburgh, Pa., an expert who specializes in old types of rolling stock.

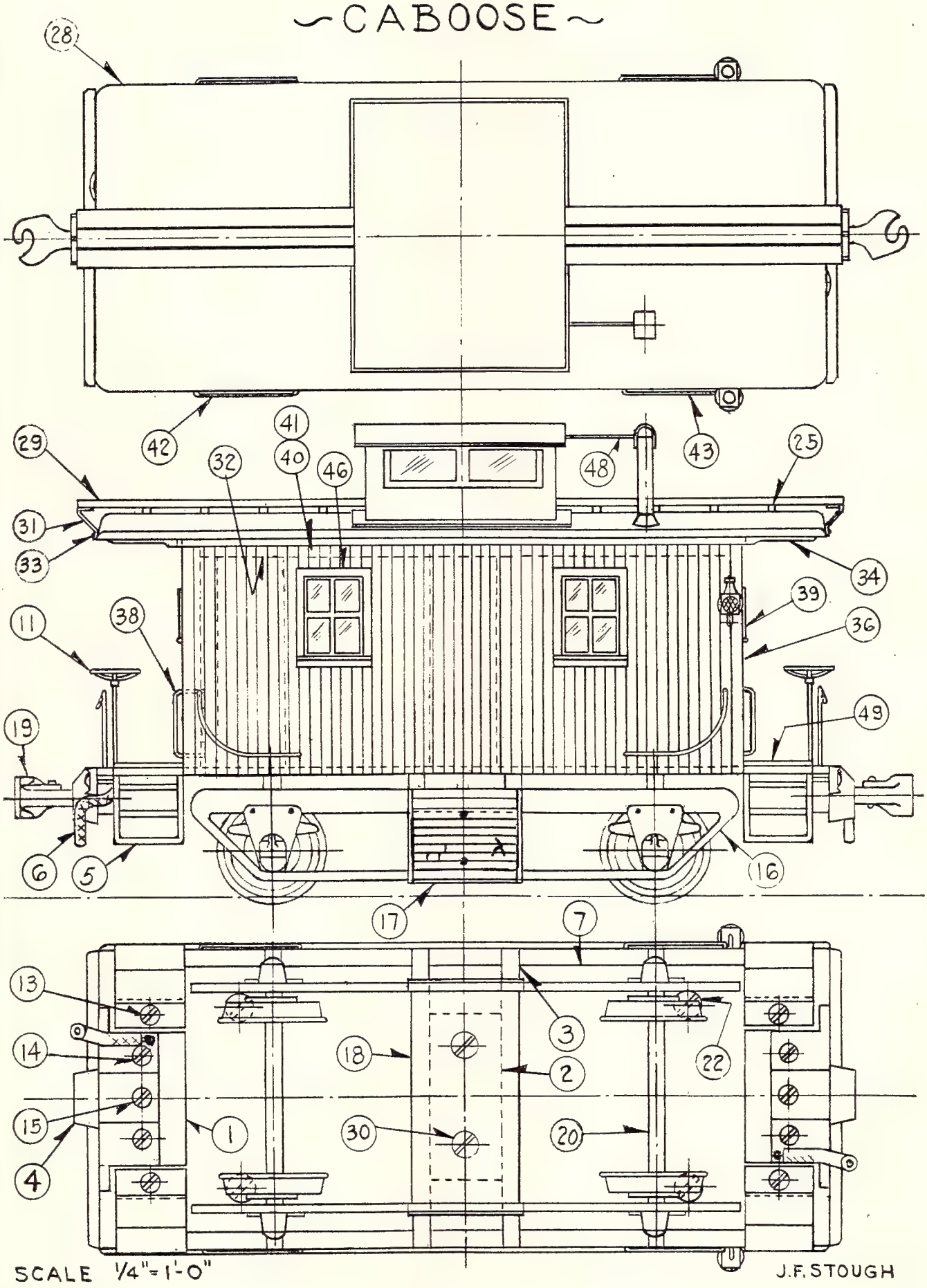
On the right is a complete list of parts necessary for the construction of this model. Other material could be substituted if within the specified tolerances. You should have no difficulty in obtaining any of this material as all is readily available. Your workshop will supply most of this material, a hobby dealer can supply the rest.

A highly detailed model deserves a good paint job, one that will be a credit to your craftsmanship. When all the parts of this model have been finished and are ready for assembly, we suggest you refer to the article, "Finishing Your Rolling Stock," that appeared in the September issue and paint this caboose accordingly.

PARTS LIST

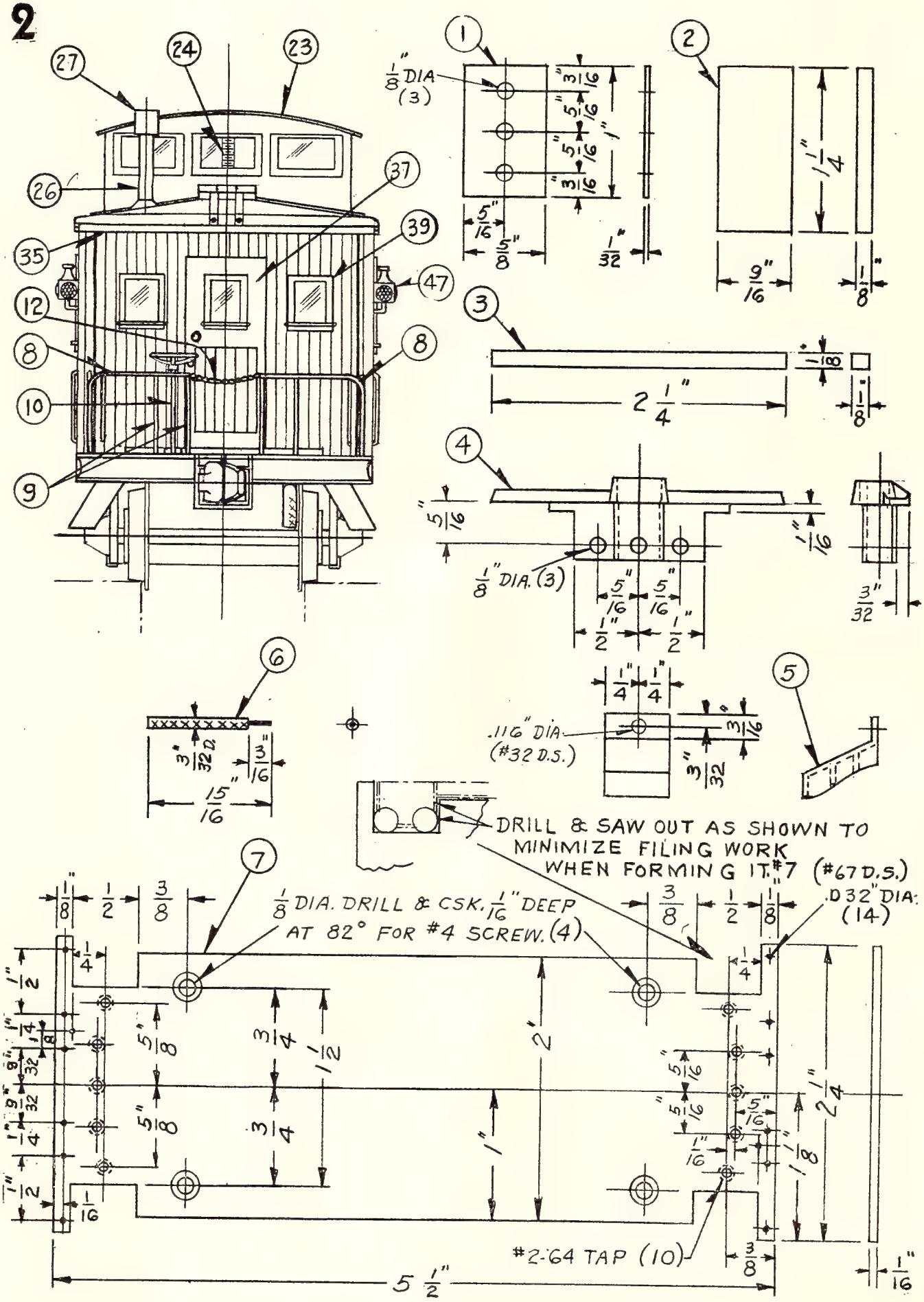
ITEM NO.	DESCRIPTION OF MATERIAL (Dims. in inches)	REQ.
1	SHIM FOR RAISING END SILLS 1 x 5/8 x 1/32 Brass	2
2	BOLSTER BLOCK 1¼ x 9/16 x ⅛ Brass	1
3	CROSS BRACES 2¼ x ⅛ x ⅛ Brass	4
4	END SILLS—Selley Mfg. Co.—modified per drawings	2
5	STEPS—Selley Mfg. Co. (P5 type) drilled per drawing	4
6	BRAKE HOSE—15/16 of #20 R. C. & Braid copper wire	2
7	UNDER FRAME 5½ x 2¼ x 1/16 Brass	1
8	HAND RAIL—1⅜ x 1/32 Dia. Brass (can be made from paper clip)	4
9	POST—21/32 x 1/32 Dia. Brass (can be made from paper clip)	8
10	BRAKE STAFF—25/32 x 1/32 Dia. Brass (can be made from paper clip)	2
11	BRAKE WHEEL—Walthers Ajax Type	2
12	CHAIN—(any 5 & 10)	2
13	#2-64 x ⅛ Rd. Hd. Br. M. screws	4
14	#2-64 x 3/16 Rd. Hd. Br. M. screws	4
15	#2-64 x ⅜ Rd. Hd. Br. M. screws	2
16	TRUCK FRAMES—(Hawk 4 wheels)	2
17	TOOL BOX END—(can be made from HO refrigerator car door)	2
18	BOLSTER—1 19/32 x 13/16 x 11/16 hardwood (maple or oak)	1
19	COUPLERS—(any type permissible)	2
20	TRUCK WHEELS (furnished with item 16 comp.)	2
21	⅜ LONG BRASS BRADS (thin as possible) Bank pins can be used	1 BOX
22	#O x ½ FLAT HEAD BRASS WOOD SCREWS	8
23	CUPULA—Walthers	1
24	CUPULA SCREWS—(furnished with item #23)	1
25	BRACES FOR RUNNING BOARD 7/16 x 1/16 x 1/16 white pine	8
26	STOVE PIPE ¾ x 3/32 Dia. Brass	1
27	STOVE PIPE HOOD ⅜ x 3/16 x .015 tin	1
28	ROOF 5½ x 2 5/16 x 3/16 Pine Wood	1
29	RUNNING BOARD 2 5/32 x 7/16 x 1/16 Pine Wood (Hawk's can be used)	2
30	#4-48 x ⅞ Flat head Br. Mach. screws	2
31	RUNNING BOARD END BRACES (Make from Scalecraft "OO" Gauge)	4
32	ROOF SPACER 4 x 2 x ⅛ White Pine	1
33	BANK PINS	4
34	ROOF TRIM 5 5/16 x 1/16 x 1/32 White pine	2
35	ROOF TRIM 2¼ x 1/16 x 1/32 White pine	2
36	BODY END 2 x 1¾ x ⅛ White pine (a Hawk box car body is ok.)	2
37	DOOR 1⅝ x 13/16 x ⅛ White pine	2
38	GRAB IRON 1⅛ x 1/32 Dia. Brass (paper clip may be used)	4
39	END WINDOW (Selley Mfg. Co.) HO gauge windows	6
40	CAR SIDE 4¼ x 1 27/32 x ⅛ White pine (a Hawk box car body is ok)	1
41	CAR SIDE 4¼ x 1 27/32 x ⅛ White pine (a Hawk box car body is ok)	1
42	GRAB IRON L.H. 1 11/16 x 1/32 Dia. Brass (a paper clip may be used)	2
43	GRAB IRON R.H. 1 11/16 x 1/32 Dia. Brass (a paper clip may be used)	2
44	CORNER BLOCKS 1⅝ x ½ x ½ White Pine	4
45	MID. BLOCKS 1⅝ x ½ x ½ White Pine	2
46	SIDE WINDOWS—(Walthers or Selley Mfg. Co.)	4
47	MARKER LIGHTS (Walthers or Selley Mfg. Co.)	2
48	GUY 9/16 x 1/32 Dia. Brass (paper clip can be used)	1
49	FLOOR BOARD 1 ½ x ⅝ x 1/16 White pine	2

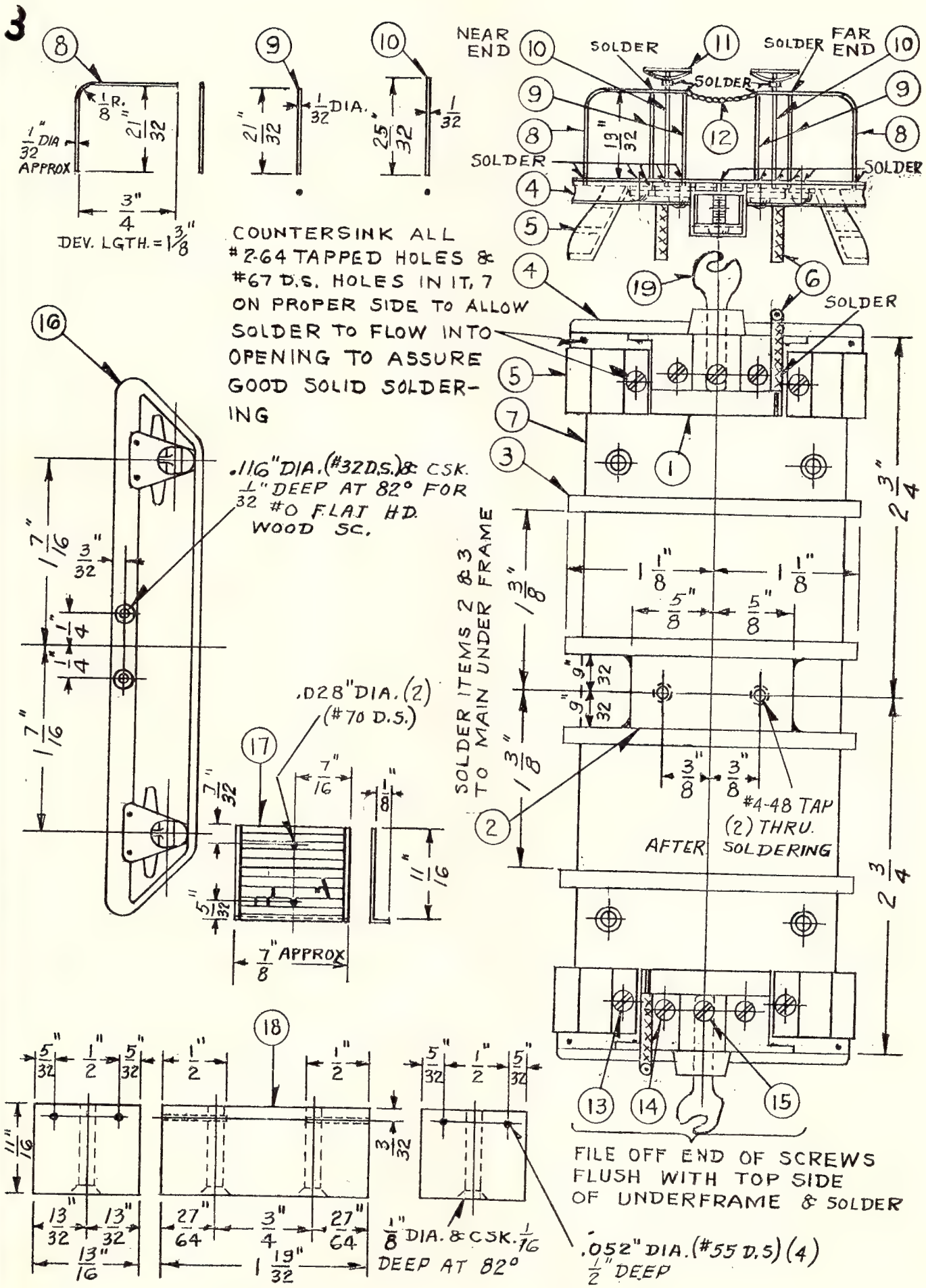
~CABOOSE~

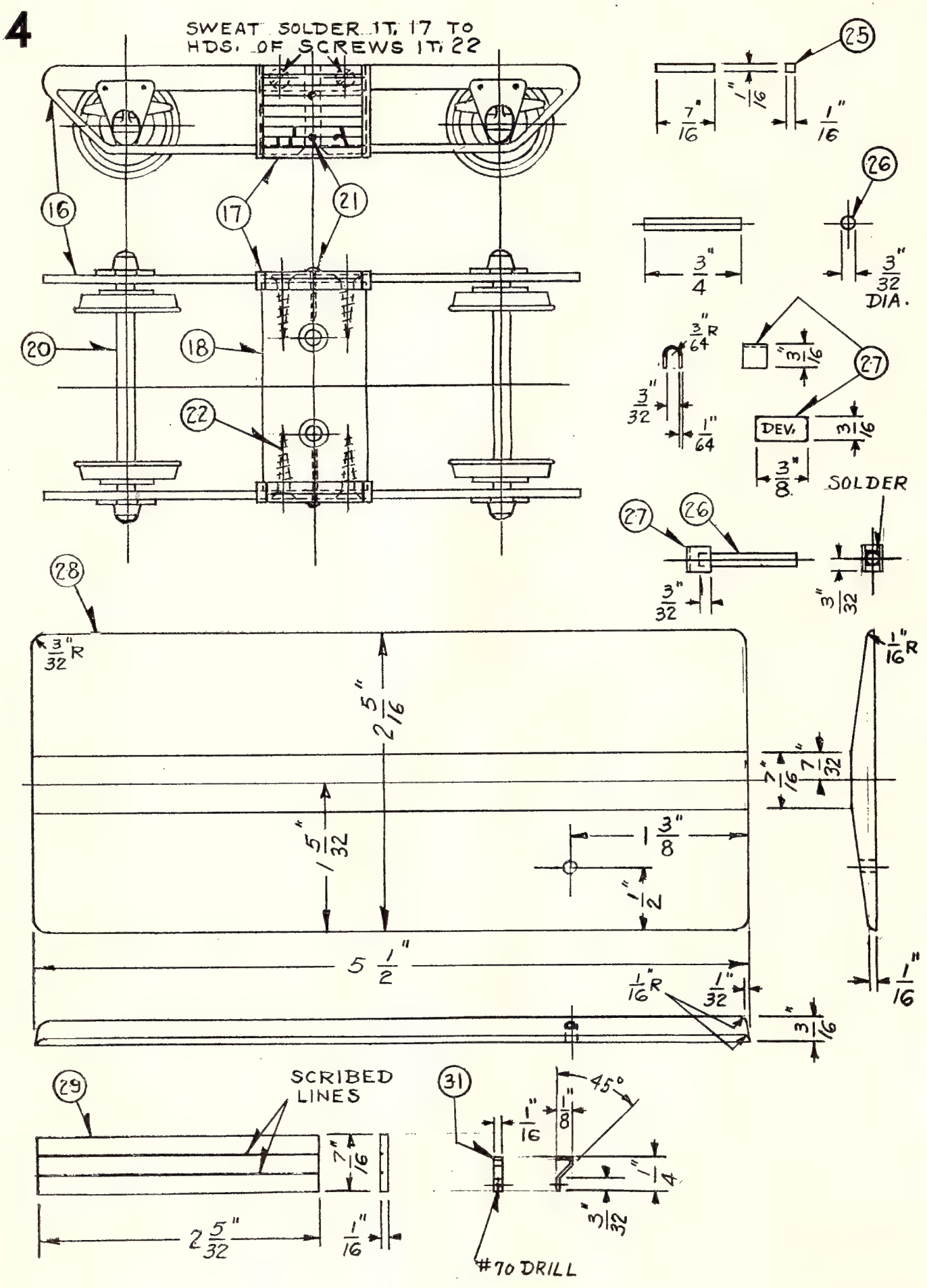


SCALE 1/4"=1'-0"

J.F.STOUGH


2
27
24
23
26
37
39
35
47
12
8
8
10
9
1
1/8" DIA (3)
3/16"
5/16"
5/16"
5/16"
3/16"
1"
5/16"
5/8"
1/32"
2
1 1/4"
9/16"
1/8"
3
1 1/8"
2 1/4"
1/8"
4
5/16"
1/16"
1/8" DIA. (3)
5/16"
5/16"
1/2"
1/2"
3/32"
6
3/32" D
3/16"
15/16"
1/4"
1/4"
.116" DIA (#32 D.S.)
3/16"
3/32"
5
DRILL & SAW OUT AS SHOWN TO MINIMIZE FILING WORK WHEN FORMING IT.
7
(#67 D.S.)
1/8" DIA. DRILL & CSK. 1/16" DEEP AT 82° FOR #4 SCREW. (4)
1/8"
1/2
3/8
3/8
1/2
1/8"
D32" DIA. (14)
1/4
1/4
1/2"
1/4"
5/8"
3/4
1 1/2
2"
5/8"
3/4
1"
5/16"
5/16"
5/16"
1/16"
1 1/8"
2 1/4"
1/2"
1/4"
1/16
#2-64 TAP (10)
3/8
1/16"
5 1/2"


8
9
10
1/8 R.
21/32
1/32 DIA APPROX
3/4"
DEV. LGTH. = 1 3/8"
1/32 DIA.
25/32
1/32
NEAR END
FAR END
SOLDER
11
12
19/32
4
5
6
19
16
17
18
7/16
3/32
1/4
.116" DIA. (#32 D.S.) & CSK. 1/32" DEEP AT 82° FOR #0 FLAT HD. WOOD SC.
.028" DIA. (2) (#70 D.S.)
7/32
5/32
11/16
7/8 APPROX
COUNTERSINK ALL #2-64 TAPPED HOLES & #67 D.S. HOLES IN IT, ON PROPER SIDE TO ALLOW SOLDER TO FLOW INTO OPENING TO ASSURE GOOD SOLID SOLDERING
SOLDER ITEMS 2 & 3 TO MAIN UNDER FRAME
1 3/8"
1 1/8"
5/8"
2 3/4"
#4-48 TAP (2) THRU. AFTER SOLDERING
3/8"
13/32
27/64
3/4
1 19/32
13/16
1/8 DIA. & CSK. 1/16 DEEP AT 82°
.052" DIA. (#55 D.S.) (4) 1/2" DEEP
FILE OFF END OF SCREWS FLUSH WITH TOP SIDE OF UNDERFRAME & SOLDER


4
SWEAT SOLDER IT. 17 TO HDS. OF SCREWS IT. 22
16
17
21
20
18
22
25
7/16"
1/16"
1/16"
26
3/4"
3/32" DIA.
3/64"R
3/32"
1/64"
3/16"
27
DEV.
3/16"
3/8"
SOLDER
27
26
3/32"
3/32"
28
3/32"R
2 5/16"
1 5/32"
1 3/8"
1/2"
5 1/2"
1/16"R
1/32"
3/16"
1/16"R
7/32"
7/16"
1/16"
29
SCRIBED LINES
7/16"
2 5/32"
1/16"
31
45°
1/16"
1/8"
1/4"
3/32"
#70 DRILL

Old Series Lionel

along the tinplate track with *Louis Hertz*

EITHER a great deal, or very little, can be said in speaking of the trains which are generally designated as the "old series" Lionel models. They might even be covered simply by explaining that the name, for there are older series of Lionel models than these, and the passing of time since the term was first popularly applied has seen the passing of subsequent series of Lionel equipment into the "old" class. Still the name "old series" clings to one particular group of models, the 33's, 42's, 150's and their fellows, for these are the models with which Lionel established their reputation, and which made "Lionel Electric Trains" famous.

But if it seemed desirable to go into these models to the ultimate point, we could fill many pages recounting their development in detail, describing the various types and changes in reverse switches, headlights, hand rails, hand rail knobs, brush plates, steps, wheels, couplers, color, lettering, etc. on each of the different models, for these are also the trains on which such tinplate specialization was first raised to the status of a fine art.

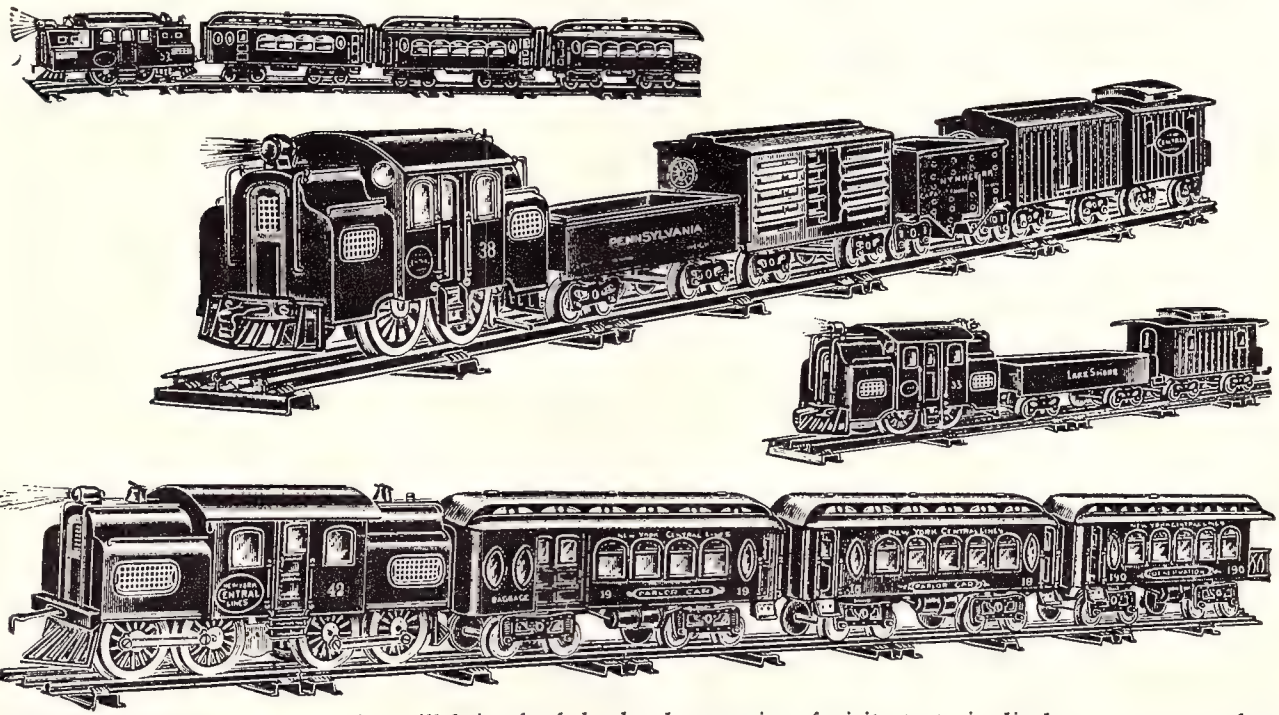
As a matter of fact, it is our intention to discuss only the electric outline locomotives this month, for both the steam types and the trolley cars have roots going back considerably further. The electric types date from 1912 and the last survivor was last cataloged in 1927. However, unless our memory is incorrect, box labels picturing the 42 were used into the 1930's, so that even into that decade this famous locomotive served more or less as a symbol of the Lionel line.

The Standard gauge models came first, and actually have a series of predecessors who held the stage but briefly. This is the 1910-1912 series, these numerals designating both the years they were made and the actual numbers of the locomotives. The 1910 was a small 0-6-0, succeeded by the 33, the 1911 was an 0-4-0, corresponding to the 38; the 1911 Special was an 0-4-4-0 with a longer body than the 1911, which became the 53; the 1912 was a larger 0-4-4-0, succeeded by the 42, and the 1912 Special was the same locomotive with a brass body, succeeded by the 54. These older locomotives all carried the New Haven herald, and were distinguished by the squared body angles, as contrasted to the curved bends in the later models.

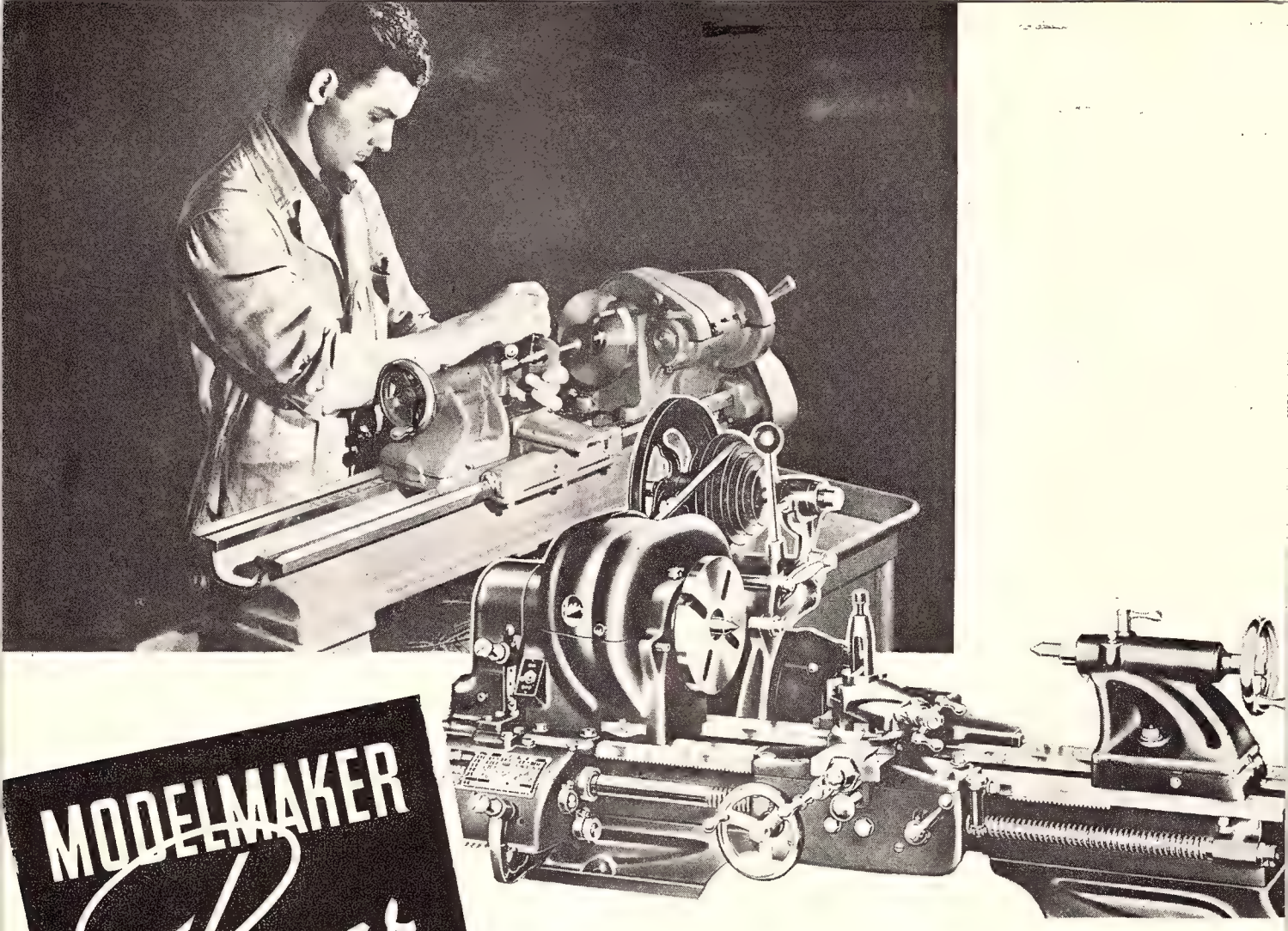
The 1912-13 period was one of confusion and changes. New bodies of the curved angle type were put into use on the 1910 and 1911. The 1912 remained the same in both style and number, but the 1911 Special and 1912 Special became the 53 and 54 respectively, although unchanged structurally. In 1913 the curved body was introduced on the larger locomotives and the 1912 became the 42. The brass locomotive may have been continued in the older style body for a year. Only the 53 remained the same structurally as the old 1911 Special and continued in the line with its old square angle body for a number of years, always appearing somewhat as an anachronism, at least in retrospect.

In 1913 the small 0-6-0 became an 0-4-0, the 33 or 34, and the larger 0-4-0 became the 38. Now, here with the 33-34, is the matter which has puzzled Tinplaters for some years, and which we will endeavor to clear up. Because the model was made

(Continued on page 45)



These Lionel Standard gauge trains will bring back boyhood memories of visits to train displays to many readers. The set at the top has the 0-4-0 No. 53 locomotive and 180 series cars. In the center are shown the No. 38 and No. 33 locomotives and the 100 series freight cars. The train at the bottom with the No. 42 locomotive was the featured Lionel set from 1913 to 1922.



MODELMAKER Power Tools

This is the first article of a series on running the modelmaker's back-geared, screw cutting, precision lathe. Detailed description showing how to use the lathe and its various attachments are planned for forthcoming issues along with how-to-build articles on many of its most important tools and accessories. Future articles of a similar type are scheduled for the drill press and other power tools.

IN MANY home workshops the country over, you will find the precision lathe busy at the hands of highly skilled mechanics turning plans and ideas into new tools, inventions and working models for pleasure, relaxation and the needs of Industry.

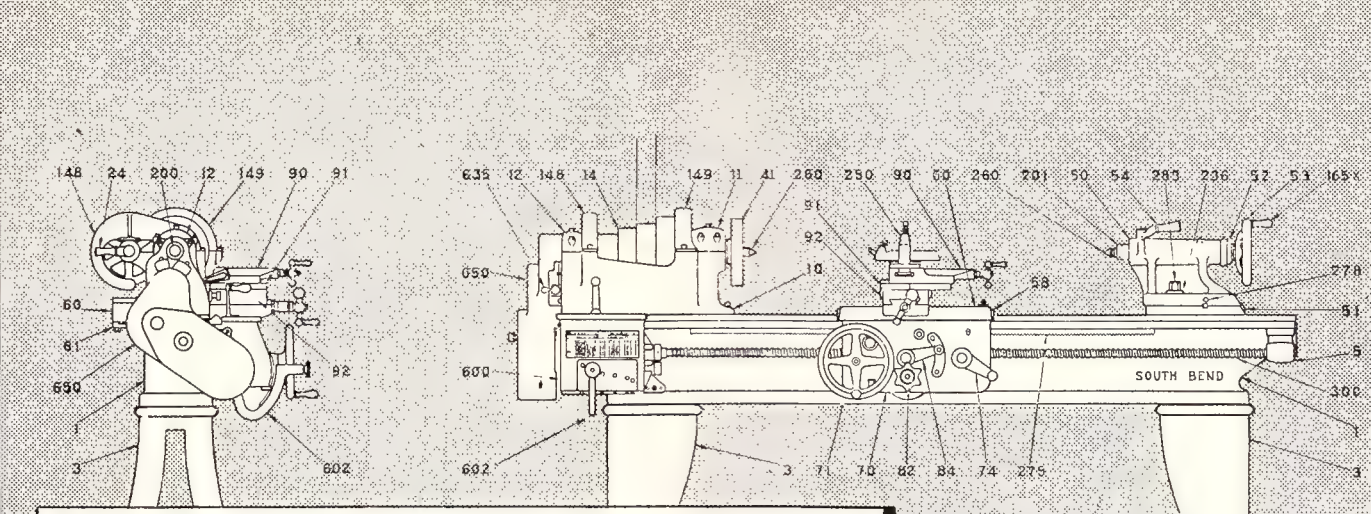
The modern, back-geared, screw cutting lathe is capable of turning out such an amazing variety of high precision work that it has well earned the title, "King of Tools". It can handle more jobs of a mechanical nature than any other machine.

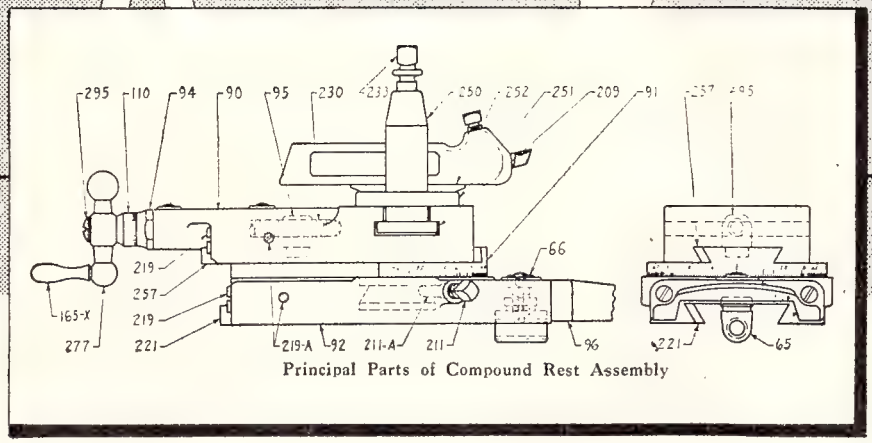
In the Modelmakers shop, the lathe and its various attachments will be called on for many machining operations—turning, milling, grinding, drilling and boring, thread cutting in all sizes and shapes, spring and coil winding. The adaptability of this machine makes this the universal tool and by far the most important one in the shop.

Representing, as it does, a good portion of the total investment in the tools of the small shop, great care should be taken in its selection, especially with regard to the work to be turned out. The nine and ten inch swing of the lathes shown above should be ample for the average work of a modelmaker. Unless long work over ¾" in diameter is to be machined, it will be best to get the short bed length. The short bed lathe is less expensive and much more sturdy than the longer one, and bar stock up to ¾" in diameter passed through the hollow headstock spindle can be turned in most any length if the outboard end is supported. For general use, the lathe with power cross feed and quick change gear attachment will be well worth the additional cost as will the two step cone pulley on the counter-shaft. This will give the lathe a good range of high speeds which are needed when turning small diameter rods in the collet attachment and when working with plastics or wood.

Iron floor stands or steel cabinets make a solid support for the lathe, but a home made work bench built of heavy, well seasoned lumber will do as well if braced solidly. The top should be at least 2" thick and the legs 3½" square. Working drawings for several styles of lathe benches can be obtained from lathe manufacturers or the plans soon to appear in Model Craftsman can be used to build your own. They will show a very sturdy cabinet bench with drawers and storage space for attachments. It will be of ample size for the long bed bench lathe with a height of 34" bringing the lathe centers to about 44" from the floor, an ideal height for the average man. For the tall fellow, a height of 47" will be best.

As the first step in successful lathe operation is to keep the lathe perfectly level at all times, the bench must be built strong and solid. The top should be planed smooth, well sanded and the bench itself





Principal Parts of Compound Rest Assembly

NAMES AND NUMBERS OF LATHE PARTS

The principal parts of the Back Geared Screw Cutting Lathe are shown in the chart above and tabulated here with the name and number of each part.

Become familar with this nomenclature as they will be referred to in following articles giving detailed information on the operation of the lathe.

1 Bed
3 Long Legs
5 Lead Screw Bracket, Rear
10 Headstock
11 Headstock Cap, Large
12 Headstock Cap, Small
14 Spindle Cone
24 Back Gear Lever
41 Small Face Plate
50 Tailstock Top
51 Tailstock Base
52 Tailstock Nut
53 Tailstock Hand Wheel
54 Tailstock Binding Lever
58 Saddle Felt Retainer
60 Saddle
61 Saddle Gib
65 Cross Feed Nut
66 Cross Feed Nut Shoulder Screw
70 Apron
71 Apron Hand Wheel
74 Nut Cam
82 Apron Clutch Knob
84 Idler Gear Shifter Lever
90 Compound Rest Top
91 Compound Rest Swivel
92 Compound Rest Base
94 Compound Rest Bushing
95 Compound Rest Nut
96 Compound Rest Chip Guard
100 C. S. Clutch Pulleys (2)
110 Compound Rest Graduated Collar
148 Quill Gear Guard
149 Bull Gear Guard
165X Compound Rest Knob Handle
200 Headstock Spindle
201 Tailstock Spindle
209 Tool Post Block
211 Compound Rest Clamp Bolts
211A Compound Rest Lock Pin
219 Dovetail Gib Adjusting Screw
219A Gib Adjusting Screw Binder Plug
221 Compound Rest Base Tapered Gib
230 Compound Rest Screw
233 Tool Post Screw
236 Tailstock Nut Washer
250 Tool Post
251 Tool Post Ring
252 Tool Post Wedge
257 Compound Rest Top Tapered Gib
260 Centers (2)
261 C. S. Shaft
262 C. S. Shipper Rod
275 Rack
277 Compound Rest Ball Crank
278 Tailstock Set-Over Screws (2)
283 Tailstock Clamp Nut
295 Nut—C. F. Screw
300 Lead Screw
600 Gear Box
602 Gear Box Tumbler
635 Reverse Bracket
650 Primary Gear Guard

leveled accurately and bolted permanently to the floor.

With the lathe in position on the bench, mark out and drill the holes for the hold-down bolts under the corresponding holes in the legs. A good machinists level, at least 12" long, should be used to accurately level the lathe *all ways,* including cross-wise and longitudinally near both the headstock and tailstock ends. Differences in height can then be taken up with wide, thin metal shims to insure a firm base. Repeat the levelling operation after the legs have been bolted down tightly. If necessary, loosen the bolts and adjust until perfectly level by adding more shims. Check the level of the lathe regularly for if the lathe is not level, it cannot turn out accurate work.

The horizontal motor drive is one of the most practical types of direct drive for the bench lathe, and is perhaps the least expensive.

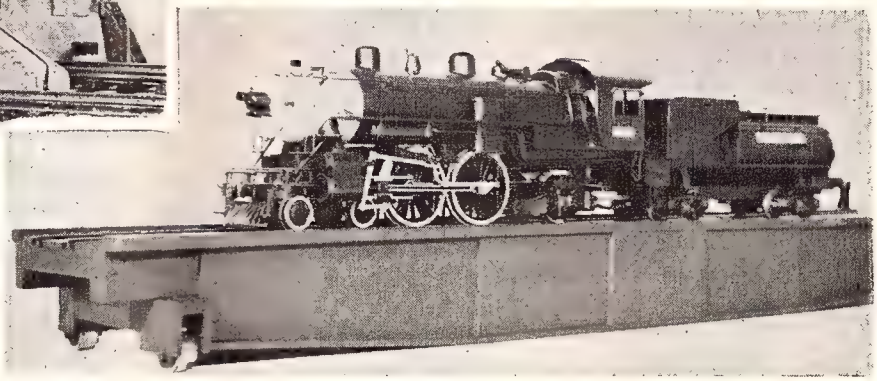
The motor for the nine or ten inch lathe should be either ⅛ or ½ H. P., depending on the type of work to be handled. Where higher than standard speeds are to be used, the ½ H.P. motor will be needed. The motor should be of the size, type and speed recommended by the lathe manufacturer. A number of lathe operations necessitate reversing the rotation of the lathe spindle and for this reason, a reversing type motor should be used. The instant reversing type is preferable, but the start-stop reversing type is less expensive. Capacitor motors for single phase alternating current are made in both instant reverse and start-stop reversing type. They have a high starting torque, constant speed and are perfectly satisfactory for lathe operation. Having no brushes or commutators, they will not cause radio interference in other parts of the house.

Repulsion induction motors for single phase alternating current have a fair starting torque and a fair constant speed,

(*Continued on page 43*)

YOUR NABOR'S PIKE

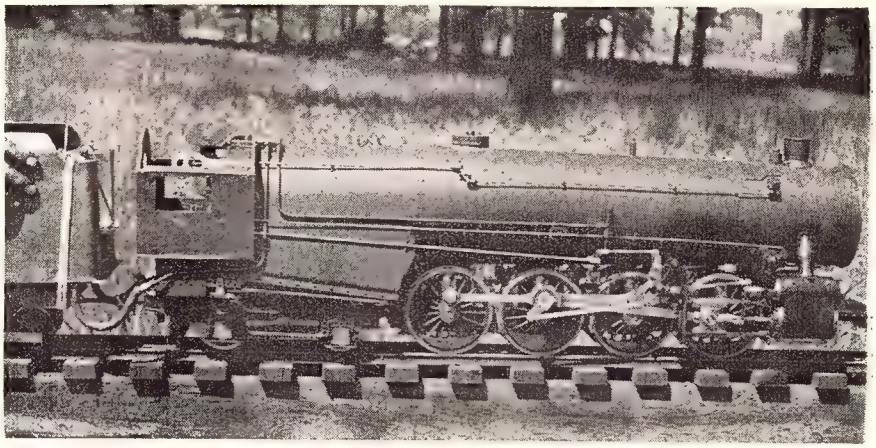
WANT THREE BUCKS? That's what we're paying for both photo and appropriate caption appearing on this page. Two bucks for each photo without caption. Here's a good chance to let your "nabor" see your work and make some easy money in the bargain. Photos are selected on a basis of good photography and reader interest. We do not limit you to some super-detailed model, so don't be bashful—your photo may be the next to appear on this page. Include all pertinent information regarding scale, gauge and all interesting facts. Send material to the Picture Editor, Model Craftsman, Ramsey, N. J. Photos will be returned on request.



FEEDING STATION for hungry HO locomotives. Paul Dreykus of Newark, N. J. even built a *working* floodlight into this coaling station. Upon very close observation you can notice it centered between the chutes. It is turned to scale from lucite and actually shines a tiny beam upon the track. Note the home made oil drums and wheelbarrows!

A-6 ATLANTIC with detail to spare. This Southern Pacific locomotive in HO is the work of Lewis Austin, Rockville Center, N. Y. Get a load of that valve gear and front end assembly—it's detail personified.

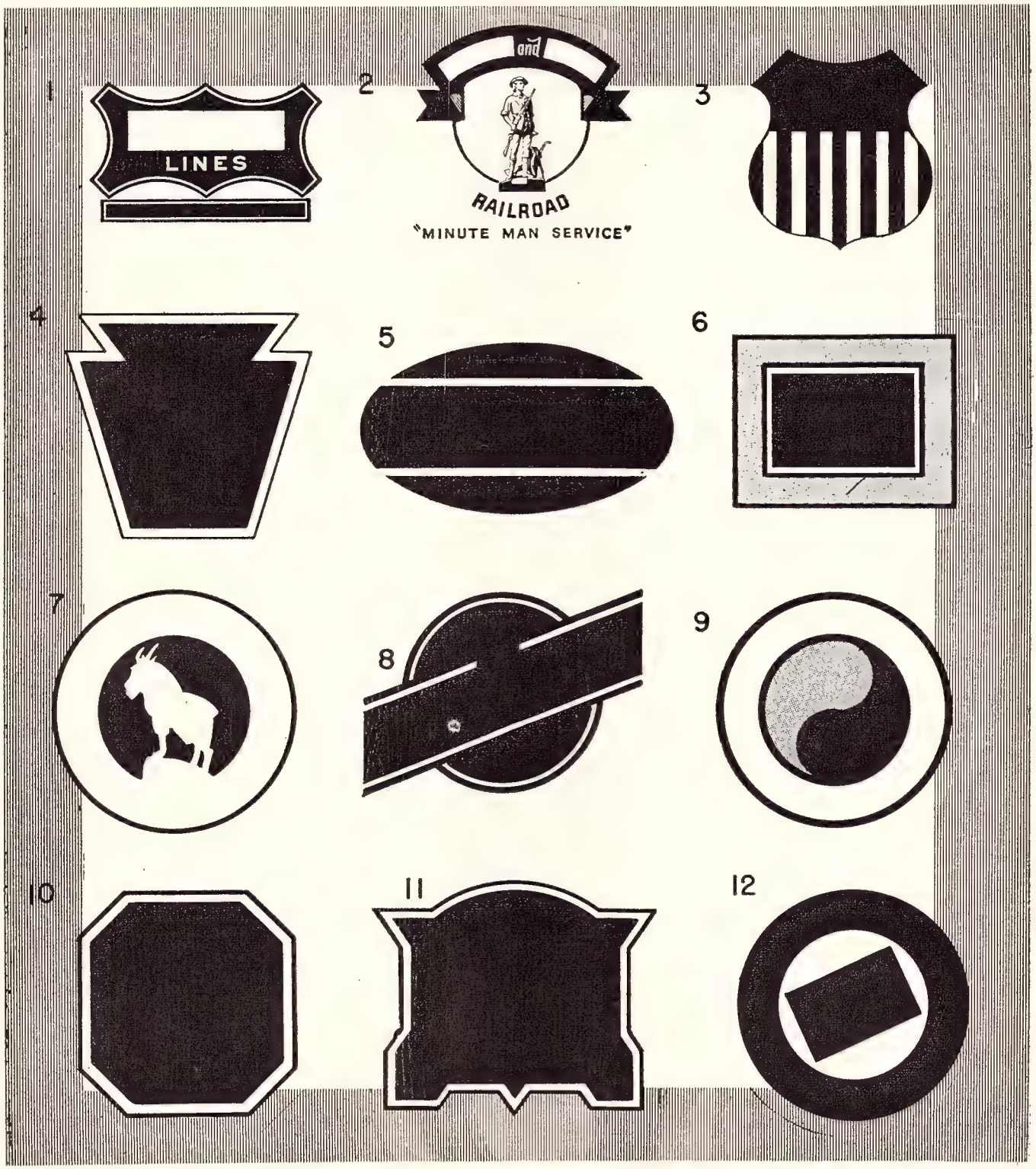
PASSING ON THE MAIN LINE. This realistic scene is a small part of the Hempfield, W. Va. Terminal Railroad Club's O gauge layout. W. J. Gwinn's fast express coming round the bend.

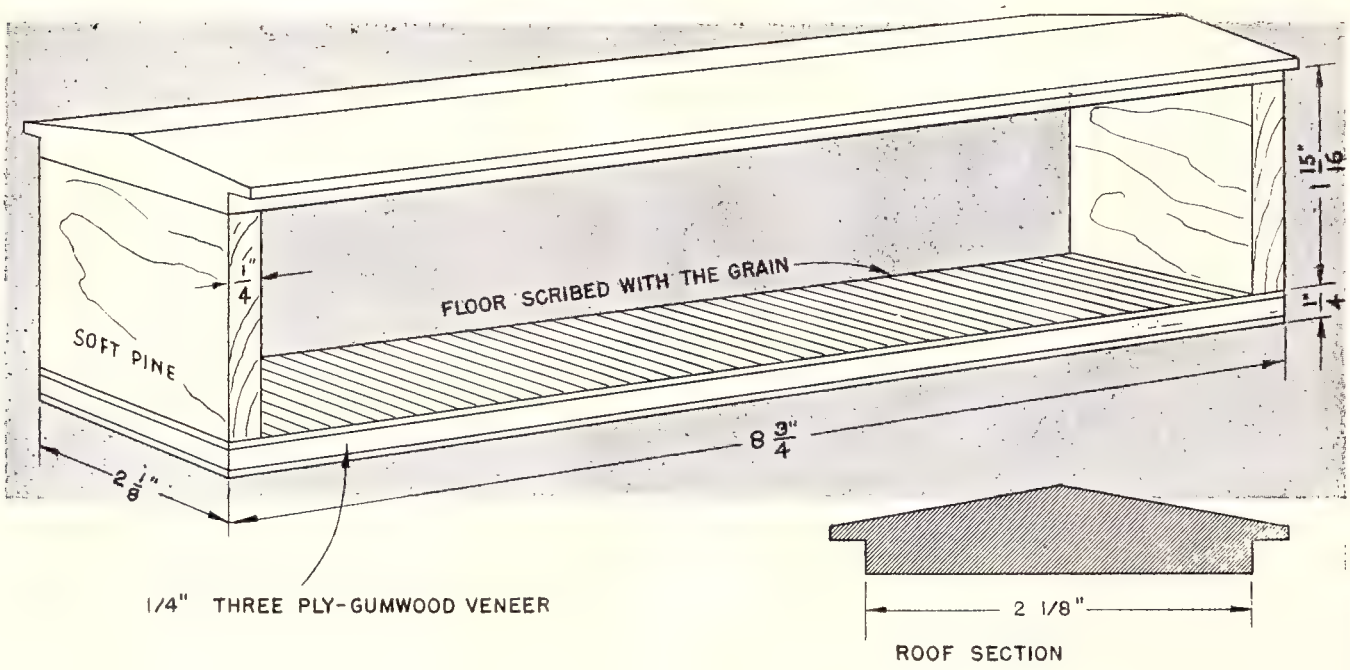


ALMOST! This ¾" scale model of the Erie 2-8-4 has already been running and represents many hours of work. This 41" live steam locomotive was built by J. Pedrant, West Englewood, N. J. from plans appearing in the Feb. '43 issue of M. C.

PROTOTYPE QUIZ

THIS month's quiz will test your knowledge of the more popular individual railroad insignias. These lines are familiar to all modelers, BUT, can you distinguish their heralds? Enough hints have been given so that you should be able to rattle off at least ten. Check on page 50 for the correct answers.





"O" GAUGE STOCK CAR

By L. A. BARTHOLOMEW

PROBABLY one thing that makes railroads so glamorous is the great variety of cars used to carry the products of farm and factory to market. One of these is the cattle car. Each road has its own particular method of putting on the side bracing and the placing and width of the slatted sides. No uniform method of placing heralds or lettering is used, each road has its own pattern. When making a stock car, it is well to select the right pattern of car to go with the road name, for instance you wouldn't put a Missouri Pacific herald and lettering on an S P pattern car, or vice versa.

When builders make stock cars for the railroads, they paint them with a dark red paint, but the cars only look new and shiny for a short time. The wind, sun and rain take their toll and the cars soon become dingy and weatherbeaten. When we speak of stock cars, we think of the *odor* that goes with them after they have been in use for a long time. Having occasion to visit the local railroad yard in search of data on stock cars, the writer found one, lone, empty car on a siding near the cattle chute. The odor of it was unspeakably vile. Overlooking the odor, certain measurements were obtained. The length was 36 feet, not including the couplers. The slats were 5 inches wide and 1 inch thick, spaced to 3 inches. The other dimensions were not essential as the ends in the kit we were to assemble would make the car be a certain height and width. The die cast doors would determine the opening size.

To achieve realism in the model, it will *not* be necessary to incorporate the odor (although it would be a novel idea!). It would add much, however, to have some bits of excelsior on the floor of the car to simulate straw, with bits of it protruding from the open doors.

A good stock car kit can be obtained from J. C. Leight, 627 E. Bryant Road, El Monte, Calif., by model railroaders who do not have the time to collect the materials necessary for its construction. Such a kit consists of roof, floor, wooden ends and prefabricated sides by J. C. Leight, Die cast ends, doors, couplers and brake cylinder by Selley Mfg. Co., Roof ribs, door guides, ladders, roof walk braces, brake platform, stirrups and underframe by Athearn, trucks and brake wheel by Walthers, T or L shapes in wood, 1/16" x 1/8" flat strips also 1/16" x 1/4" flat strips by Bessey, De Cals by Howell, obtained from Model Railroad Shop, Dunellen, N. J., and the roof walk by Picard. Sounds like a roll call, but you'll have a good model!

Start the assembly by fastening the roof to the wooden ends and then attach the floor to the ends with brads and glue. This makes the foundation body to which everything else is attached. Next drill and fasten the die cast metal ends with brads to the body, filing the casting to fit the roof section. After drilling the necessary holes through the metal ends, attach the roof walk braces with the small pins provided. The ladders are fastened in the same manner. Line it up with the metal tabs on the end casting. This will require two ladders, the other two go on the finished sides at opposite corners, just around the corner from the end ladders.

Fasten the brake wheel platform on one end next to the ladder and about two thirds of the way up. A piece of brass wire anchored in the bottom of the car, underneath and passed up through the brake platform serves as the hand brake shaft. Attach the brake wheel by piercing it and making a forced fit on the wire. The roof ribs come already drilled. Attach them with brads at the roof's edge about one inch apart. The number needed will vary with the length of the car made. It is a good plan to paint the inside of the car before attaching the sides. Paint the slatted sides on the side that will be the inside of the car before attaching. The interior will show when assembled and if left unpainted will not look right.

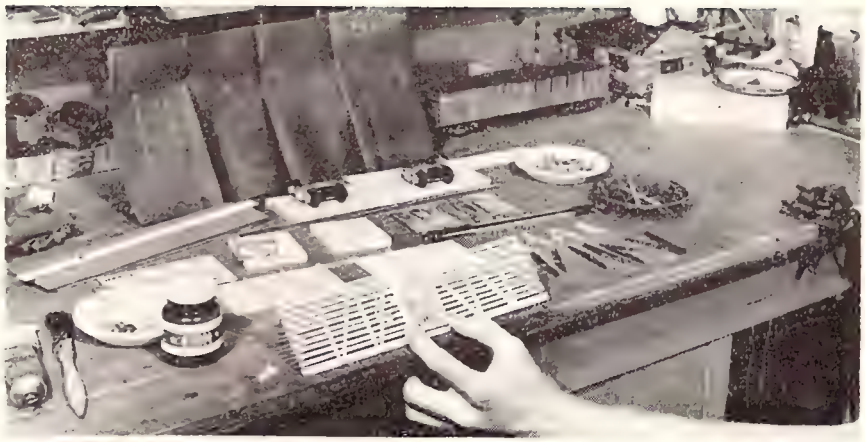
The metal underframe comes next. When received, the cross members are already drilled, so all that is necessary is to attach them to the bottom of the car body with small brads or pins according to the print furnished. The brads will stick through the floor of the car and should be cut off with a pair of diagonals flush with the wood and the ends filed smooth. Drill the center sill and attach it to the floor, fitting it in the slots of the cross members. Now drill and attach the

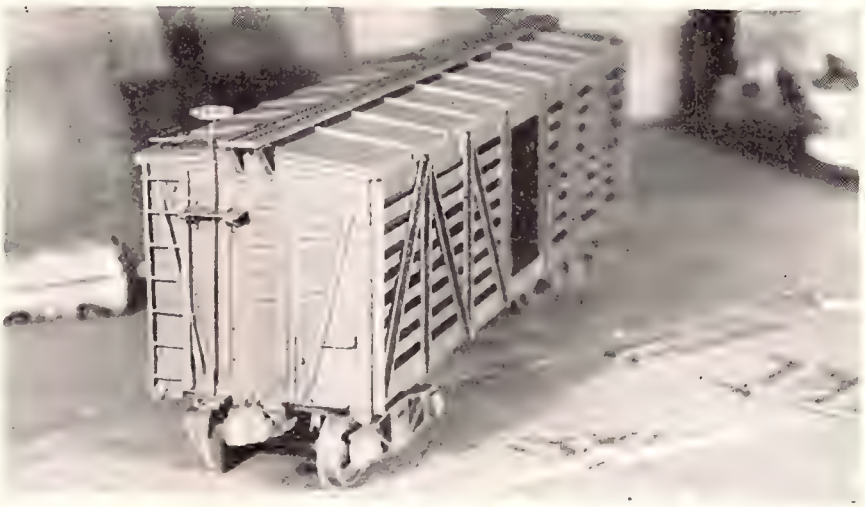
dummy couplers to the floor with tiny wood screws. The couplers should swing freely and couple easily with others so the car will not derail on the curves.

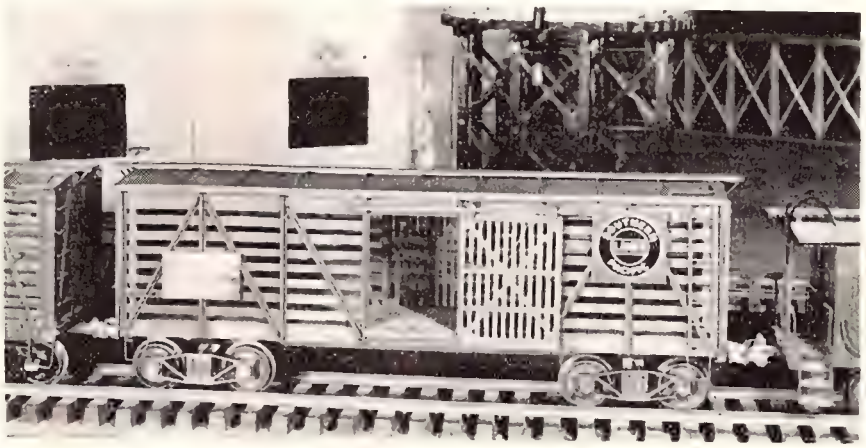
Attach the roof walk to the roof with small pins using one through each roof walk brace on the ends of the car. These pins should be bent under the brace platform and squeezed with a pair of pliers. Now fasten the prefabricated sides to the car with airplane glue. File the die cast doors at the top so the metal tab in the center will ride or glide in the door guide. Form a hook with a file in the door casting in the part that resembles rollers or wheels. Slip the door guide on the door casting. Be sure to cement some small blocks of wood on the car body over the door and to the floor edge in the doorway so that the doors will slip over the Z bracing. Now attach the top door guide to the car with pins. A U shaped wire will serve for the lower guide and will keep the door from swinging outward. The door should move easily along the top guide. The remaining two ladders are attached on the sides of the car on opposite corners. If in doubt as to exact placing, look at a prototype car for your guidance. The trucks are attached to the underframe by means of two machine screws.

.410M box car red is a good paint for finishing your car as it dries quickly and isn't too glossy. The next thing is the decals. A book on correct decal placement is a handy thing to have at this point. Such a book is published by W. K. Walthers Co. A letter board for the herald and also the serial number is made of very thin balsa wood or thin cardboard and cemented on each side in the correct place for the road name. Some are near the roof, others midway of the car. Correct placing is necessary for an authentic model. As to how to put on decals, the directions are on the container envelope.

It is a painstaking job which MUST not be hurried. Only practice will make you perfect in the art of de-caling. Do not try to put this car together in one evening, it can't be done and still have a good looking job. Take your time and a good model will be the result.







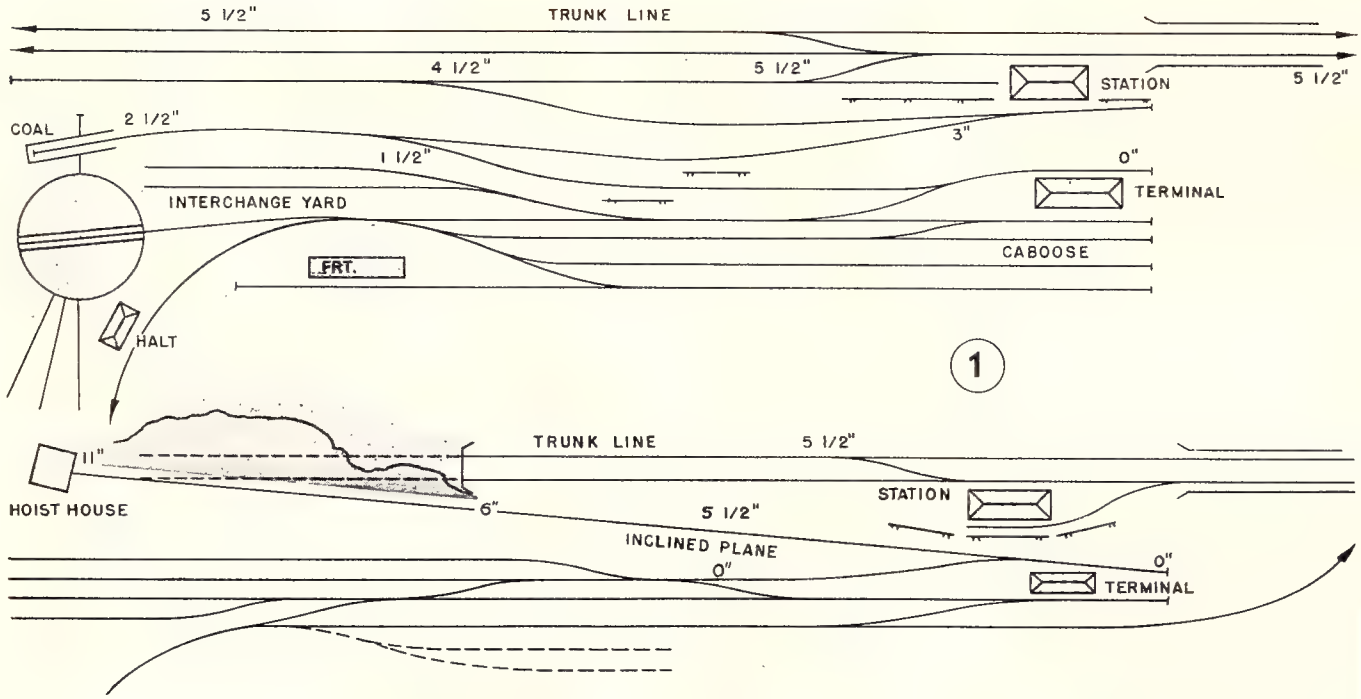
Photos on the right, from top to bottom:

All parts of the kit spread out within easy reach, working blueprints in the background.

Painting the parts before assembly. (Hand belongs to Ted Cheesman, member of the Channel Railroad Club.)

The car nearing completion, doors, guides and ladders to be added.

The finished car in operation on the Channel Lines.



Interesting Terminal Operation

By WILLIAM SCHOPP

OPERATING a model railroad just "round and round" sounds like fun, but after it has been done that way for a "spell," it becomes monotonous. More spice can be added to operation by a timetable involving meets and branch line connections. A way freight picking up and setting out cars at industrial sidings is also fascinating. A third way of adding spice is to provide interesting terminal operation. Any terminal operation is, of course, interesting. The designs presented here will add that "extra" something.

Figure 1 shows a branch line or one-horse railroad terminal which is at a lower level than a heavy, through, truck line. Ordinarily small terminal facilities are provided: run-around track, two storage tracks, freight house, engine terminal, etc., but the interchange track to the high level utilizes a switch-back. Interchange cars for the trunk line are shoved directly back to one of the two interchange yard tracks. There, in time, they are picked up by the switchback engine and taken up the zig-zag hill one or two at a time. The switchback engine should be one with all its weight on the drivers, which suggests Varney's Dock-side switcher. This will take up little room. A six or eight coupled tank engine could also be used, or how about a steeple cab electric utilizing any method of pickup. This could be your one stretch of electrified trackage.

Big operating occasions arise when the through passenger car has to be switched up the hill. Perhaps your safety rules will require a small engine at each end to protect the passengers against all runaways. When one of the smaller road's engines has to be sent up for a trip to the trunk line shops, another interesting occasion arises.

Fig. 2 is the same situation, with a larger interchange yard and an incline plane replacing the switchback. The operational possibilities here are numerous. Perhaps you will tow the cars up with a barney car as on the Ashley and Old Mahanoy Planes in Pennsylvania. This is a small heavy car, practically a truck, which gets behind the car in question and pushes it up the hill. The barney is of course powered by a cable from the hoist house at the top of the plane. The real barneys have "rubber gauge" so that the wheels can narrow down their tread to pass under the other cars at the bottom of the hill. This is not necessary in the model as depicted since the real planes are part of a continuous line, not a siding as shown here.

Another idea is to operate the plane as a rack railway a la Mount Washington, with a rack between the rails engaging the gear that drives the wheels of the engine. This would give you a chance to model one of those rack engines with down tilled boiler. Picture the consternation of the railfans in nearby towns when this engine has to be pressed into road service!

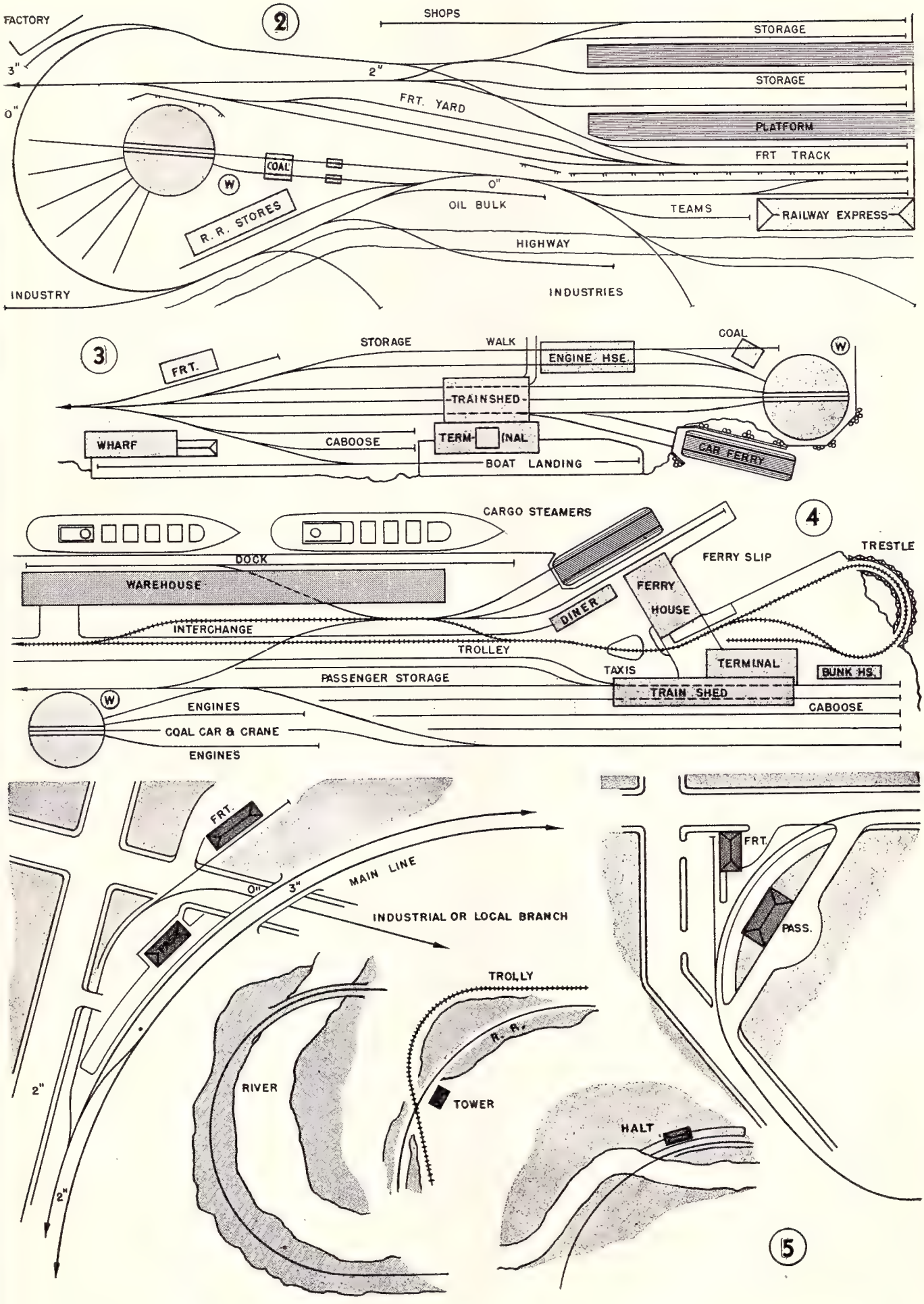
Let an engine or cable hoist the cars to the top while the engine or barney retreats past the half-way switch. The cars have been held by a catch at the top, but when the engine has cleared, the catch is released and they coast down to the interchange track where they are stopped by a short adverse grade or even a car retarder. Interchange cars in the reverse direction must be pushed onto the grade by a switcher or pulled up by a separate cable.

Fig. 3 shows a type of terminal too infrequently modeled, that of a small railroad ending at tidewater or a large river. Notice how the tracks run right down to the boat landing and steamship wharf. A small car ferry also operates. This helps make interchange cars disappear from the scene and thus adds realism.

In Fig. 4 the same idea is expanded to include a passenger and auto ferry slip, a street car loop, a road leading to the ferry and station and larger steamboat docks in addition to the car ferry.

The finished form (Fig. 5) might "take" on your own layout but depends on space available and its shape. It is for those who like a big stub end terminal, perhaps with arching trainshed. Instead of a parallel lead track in the throat of the terminal, the "lead" leads off downhill and becomes an industrial branch. The industrial branch is a device too seldom used in model railroads. It permits many industries and hence many sources and destinations of revenue freight cars, but does not clutter up the main line with switches. This is especially desirable when the main has been laid and "scenicked", or when there is little room for sidings along the main-stem.

Any one of the five terminals described could serve as the whole layout if the "open" end indicated by an arrow at the end of a track were continued on into a simple reverse loop so that trains sent out would eventually come back headed in.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INTERCHANGE
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TAXIS
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5

Allis-Chalmers Turbo-Charged Locomotive

By WILLIS L. NYE

THE Allis-Chalmers turbo-charged locomotive as shown in the drawings is among the most powerful of its type in use on American Railroads. This locomotive is powered by two duplicate 2400 H.P. gas turbines. Each turbine drives through a reduction gear system, a direct-current main and auxiliary generator. The main generators are connected to the traction electric motors which furnish power through a gear system to the axles of both the front and rear trucks. Each axle of the front and rear truck is powered by a nose-hung direct-current traction motor.

The weight of this locomotive is approximately 450,000 pounds, the two trucks each support a proportionate amount of wheel loading. 4,000 gallons of turbine fuel and 150 gallons of lubricating oil is carried on an average run and about 2600 gallons of water is carried for heating the coaches. Each gas turbine is directly air-cooled and the turbine fuel is electrically heated prior to use.

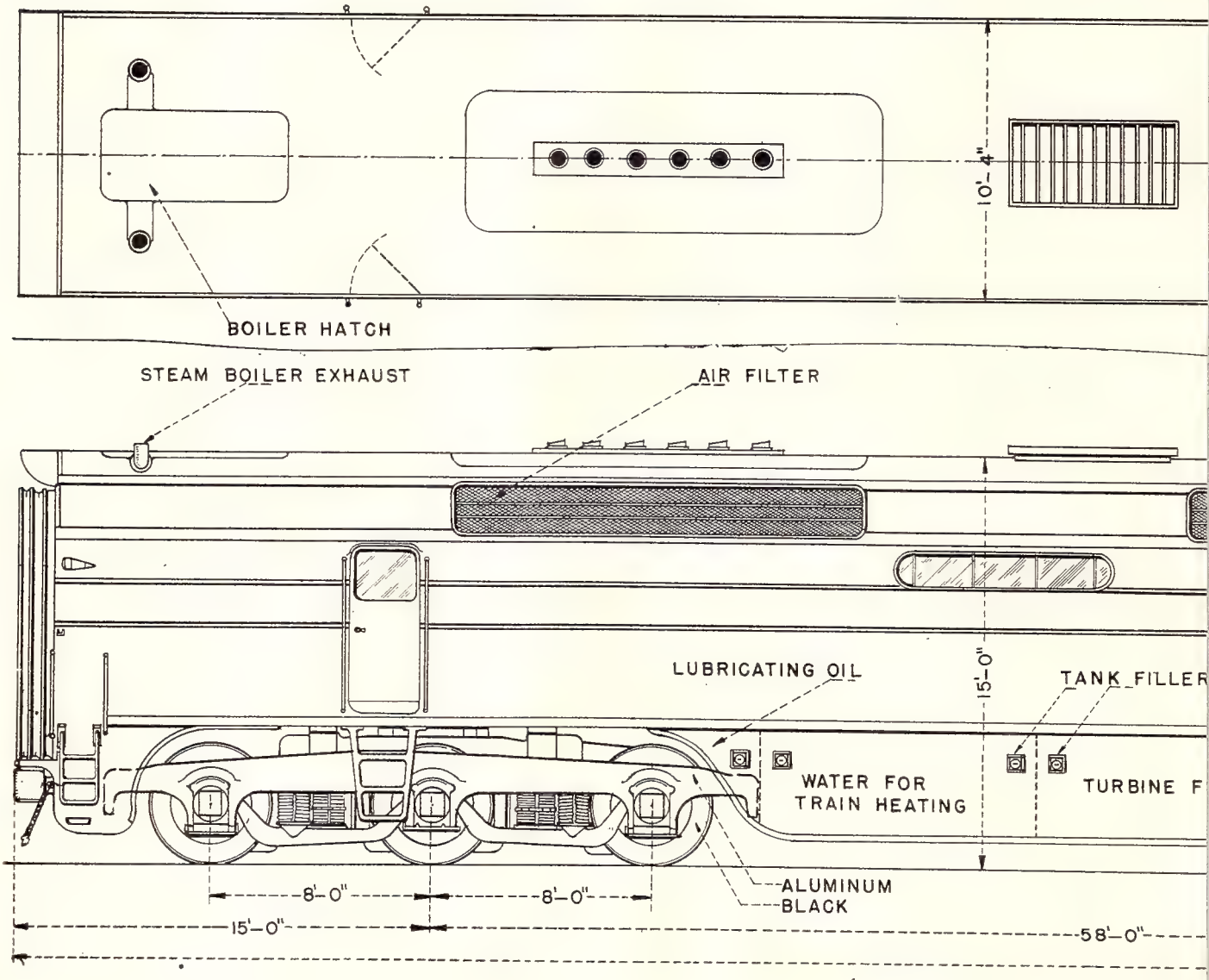
The gas turbines are located at the front and aft ends of the locomotive and the air filters are located high on each side of the engine to help eliminate the dust close to ground level.

Provision is made by means of heat exchangers to recapture some of the heat of the exhaust gases. As the occasion requires, the exhaust gases may be discharged through the heat exchangers by means of hydraulically controlled by-pass valves or to the outside through the engine exhaust stacks.

An auxiliary engine-generator set of 150 H. P. is provided to assist in starting the two gas turbine power plants. This installation, when operated, motorizes the main electrical generators. By means of a clutch and gear arrangement, this small engine-generator set may be used for slow travel about the rail yards for reasons of economy. The boiler of the auxiliary equipment is steam fired in a direct manner. This auxiliary boiler is also used for heating the entire train when it is not in use.

The lubricating oil is cooled by an electrical fan. The nose-hung traction motors are cooled by integral blowers which circulate air through the motor frame. The gas turbines are cooled by circulating air under pressure around the turbines.

The locomotive is constructed of high strength steel for all members carrying primary loads. Aluminum alloy or stainless steel are used for those parts of secondary load importance. Each truck is provided with a transverse and longitudinal spring suspension. Each axle is contained in a roller bushed bearing journal. This locomotive is extremely powerful and is capable of running at 125 mph, dependent upon the weight of the cars to be drawn.



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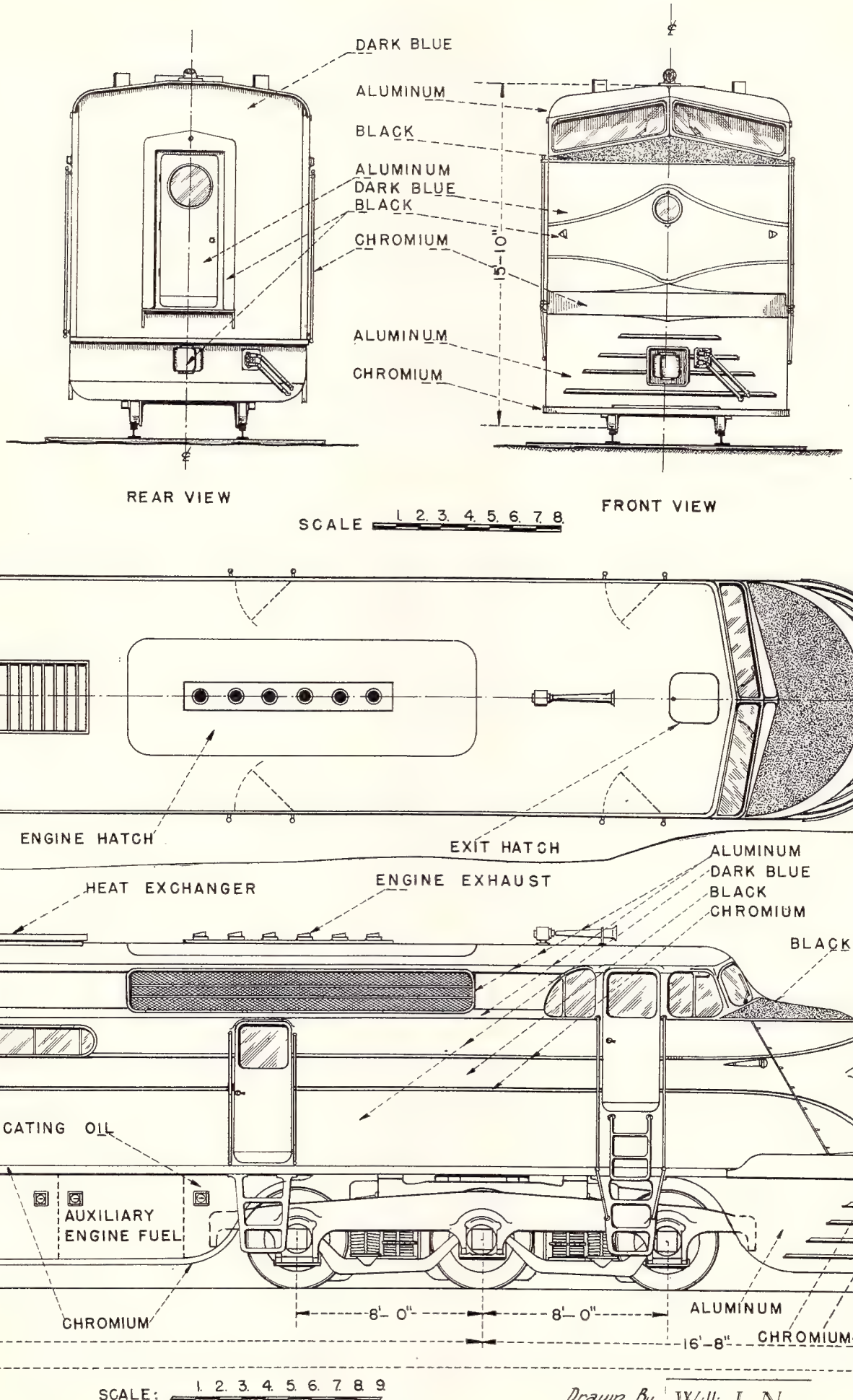

DARK BLUE
ALUMINUM
BLACK
ALUMINUM
DARK BLUE
BLACK
CHROMIUM
15'-0"
ALUMINUM
CHROMIUM
REAR VIEW
FRONT VIEW
SCALE 1 2 3 4 5 6 7 8
ENGINE HATCH
EXIT HATCH
HEAT EXCHANGER
ENGINE EXHAUST
ALUMINUM
DARK BLUE
BLACK
CHROMIUM
BLACK
LUBRICATING OIL
AUXILIARY
ENGINE FUEL
CHROMIUM
8'-0"
8'-0"
ALUMINUM
16'-8"
CHROMIUM
SCALE: 1 2 3 4 5 6 7 8 9
Drawn By Willis L. Nye

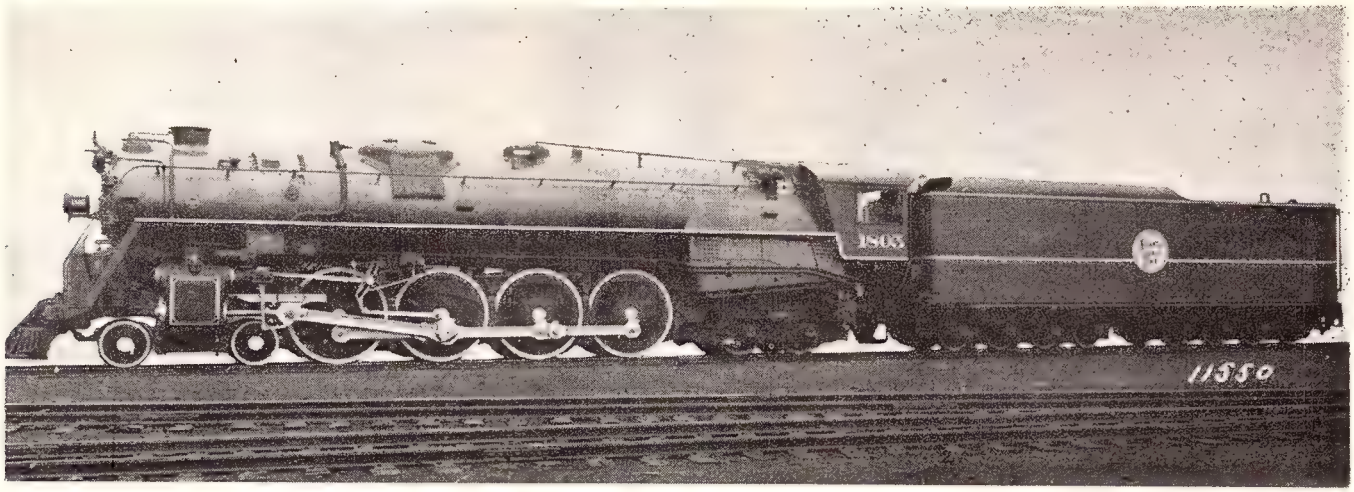
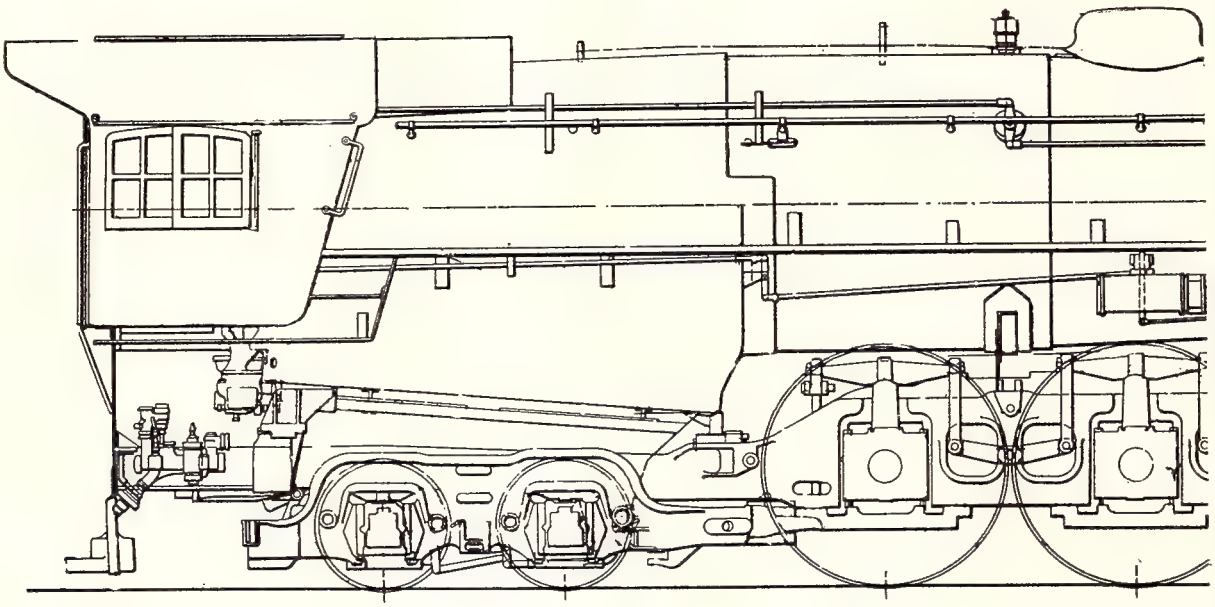
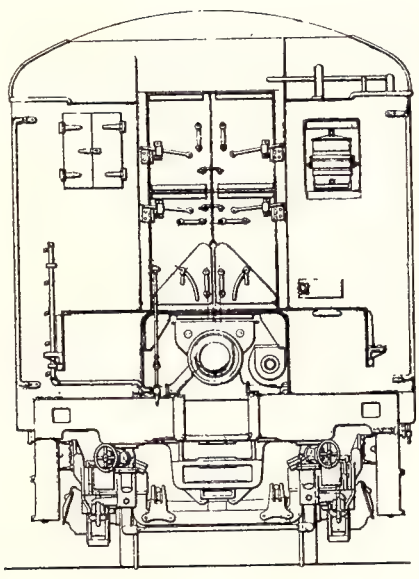


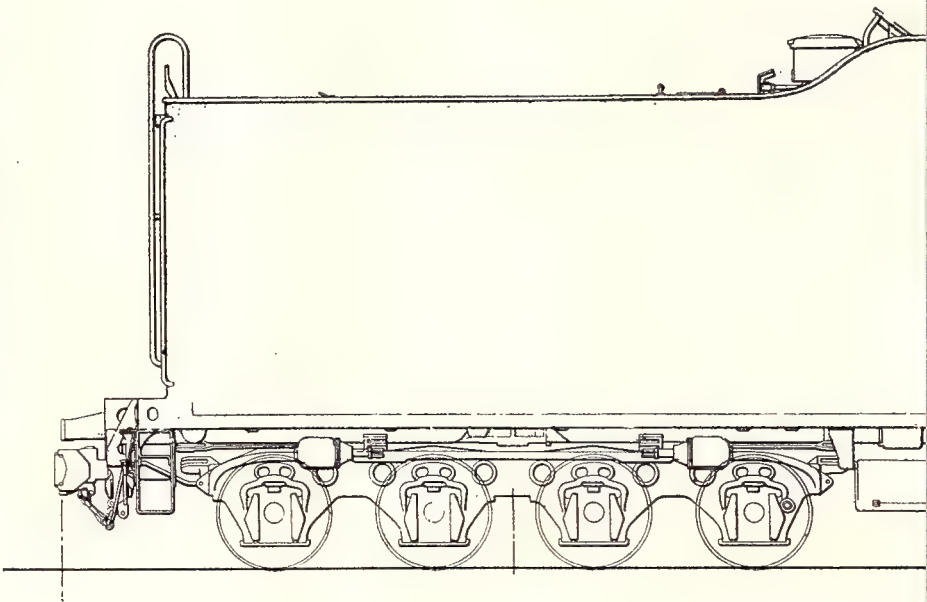
Photo courtesy Atlantic Coast Line RR.

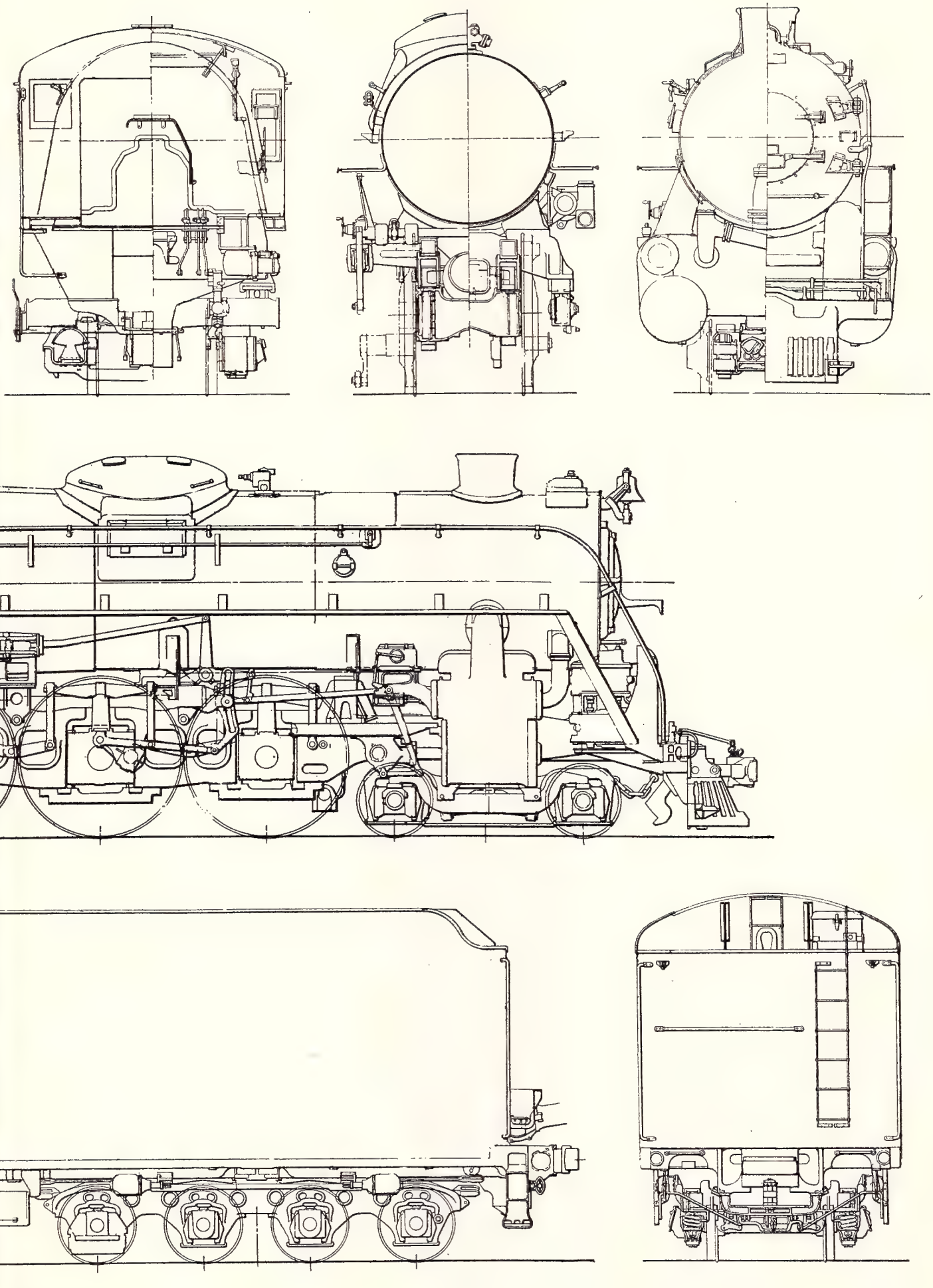
Atlantic Coast Line 4-8-4

SCALE 3/16″ = 1′









NMRA CONVENTION

California Style

The East Bay Society of Model Engineers plays host to the 1947 Convention of the N. M. R. A.

THE 1947 Convention of the N. M. R. A. is now History! To say it was the best yet is putting it mild! The convention was held in Oakland, Calif., on August 15, 16 and 17, and was sponsored by the Pacific Coast Region of the NMRA and the East Bay Model Engineers Society. The 74 members of the Eastbay Society were all on the ball and the work of their committees was flawless. They deserve a world of credit.

About 700 delegates attended the convention, even Canada and Mexico were represented. Many of the delegates from the East rode a special train from Chicago to Oakland via the Burlington, Rio Grande and Western Pacific. At Sacramento, this special train, "the Dreamliner," was met by members of the host club and their wives, and then the complete ensemble continued on to Oakland.

In Oakland, the train was met by the entire gathering of railroaders. With a great amount of noise and ado, the entire procession paraded through downtown Oakland to Convention Headquarters, Hotel Leamington.

All Thursday night the East Bay club rooms were open with continuous operation over both of their HO and O gauge systems. Both of the layouts were open to guest operation either for the club or their own trains. This feature greatly pleased everyone. The O gauge layout is the largest in area in the country and has a total trackage of 2,500 feet. It has more than 100 switches, 225 relays and more than 5 miles of wire in the electrical hookup. A battery-charger system is used for power and supplies enough power to take care of all the trains that can be placed on the layout. The HO layout is perhaps even more ambitious, it now has more than 2,000 feet of track and is still being expanded. Those Eastbay boys know their business.

After registration on Friday, the special tours were started. Several fan trips were planned and all were well attended. The first was a trolley and cable car fan trip over the famous San Francisco Bay Bridge via the Key System Trains. Here they were met by buses which took the visitors to such popular places of interest as the Market Street four track car line, the main cable car turntable (in operation at the time), an inspection of the original cable car site and the power plant for the cable cars, the Cable Drum House. Many of the fellows got their first ride on a Cable Car.

While the trolley fans were on their tour of inspection, the live steamers visited the Golden Gate Live Steamers Club located in the home of Vic Shattock. The club, started in 1936, now boasts forty members, all building or learning to build a live steam locomotive. They had a good look at Vic's 2½" gauge railroad, complete with roundhouse, electrically operated turntable, switches, signals and bridges. He also had several locomotives and about twenty cars of various types on exhibit. Everything was on display and the visitors were made to feel at home.

In the evening a tour through China Town was conducted, to the satisfaction of everyone. All of the tours were made by special buses and they also conducted a shuttle service between the club rooms and the down town hotels. This innovation gave all those without transportation the mobility so lacking when you travel by train, plane or means other than your own car. It was greatly appreciated.

All Friday and Saturday various manufacturers had displays in the club rooms and the two Eastbay layouts were in continuous operation the entire weekend.

One of the outstanding events scheduled was a 7½ hour tour of the entire Bay area. Many famous places were seen to the interest of everyone. The trip started in the down-town section of Oakland and proceeded to Piedmont, a residential city noted for its magnificent homes. From here the Skyline Drive, a 2000 foot high road giving a clear view of the surrounding country, was taken to Berkeley, the home of the University of California. The Muir Woods National Monument was next on the program. This is a 425 acre tract of the huge California Coastal Redwood Trees, some 17 foot in diameter. To the Easteners, this was one of the most inspiring moments of the entire trip.

After a close-up of San Francisco and its points of interest, the tour headed back to Oakland via the San Francisco-Oakland Bay Bridge, the World's largest, 8½ miles long. With the exception of the lunch in Berkeley, the tour was free to all delegates. Frequent stops were made during the trip for leg stretching and

(*Continued on page 48*)

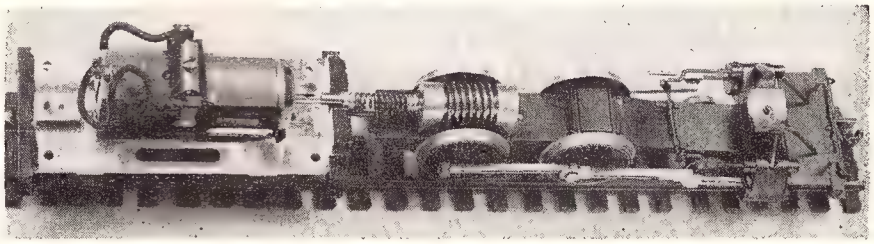
Here's the way they fed 'em at the bar-b-q!

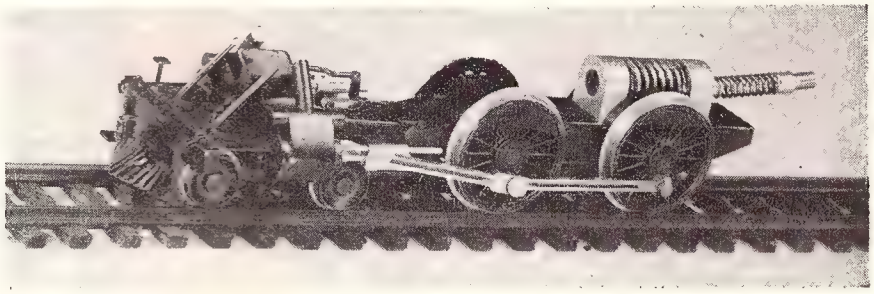
Part of the 74 members of the East Bay Society. Left to right are: H. Huebenthal, Ed Campbell, NMRA Pres.; unknown, Herb Schultz, Ed. NMRA Year Book; Bill Roberts, W. Brown, Jack Shoff, Don Stewart, Bob Smith, Ed Scudder, Harvey Morton, Cliff Grandt, Chuck Althouse, Bev Wilder, Bob Briggs, Jim Cryderman, Jack Collier, East Bay Pres.; Jim Munson, convention chairman; Ev. Greer, C. Blankinship, Ken Foster and Randy Mathews.

HOW TO BUILD A MODEL RAILROAD

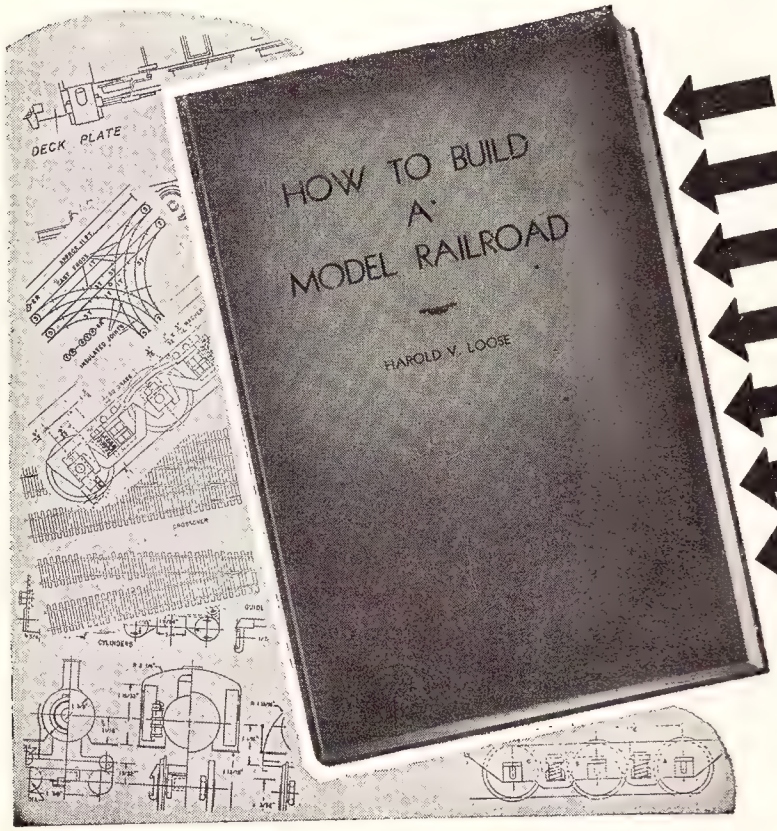
A BEGINNER'S MUST — A REFERENCE BOOK FOR VETERANS

This new edition of HOW TO BUILD A MODEL RAILROAD has been COMPLETELY revised and is right up to present day standards. It has many new plans and illustrations (more than 75 are included). "How to Build" will answer all the questions asked by the man who is starting a miniature layout as well as many of the problems encountered when a model railroad has gotten under way. The spiral binding permits pages to lie flat, a great convenience while working.





Whether you are a beginner or an experienced enthusiast, your library is not complete without this fine book



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MODEL CRAFTSMAN RAMSEY, NEW JERSEY

Race officials, left to right, Joe Olender, Glen Matthews and Gene Wallace.

1947 Cable Nationals

The 1947 Cable Nationals have come and gone and unusually high speeds were averaged. Representatives from many states converged on George Washington Park in Indianapolis, Ind., where the event was sponsored by the Indianapolis Miniature Race Car Assn. Aug. 14 through 17. Two perfect 70 ft. tracks were constructed especially for the Nationals and the entire set-up was ideal. Refreshment stands were near the pit area, plenty of solid pit benches were on hand and a very adequate loud speaker system was arranged.

All of the heats were run off like clockwork. Entrants placed their cars on the two tracks so fast after the preceding cars that running was almost continuous. That Indianapolis bunch had everything co-ordinated—But the Weather! Except for the first and last day, frequent showers wet the track to the annoyance of everyone. Very, very few got discouraged though and after the squalls, most of the boys turned to, and got the track in shape.

Even though the weather didn't cooperate, amazing speeds were turned in. The ¼ mile proto record was broken twice, five contestants bettered the ½ mile and six entries broke the one mile record. 125 contestants were entered in the races and the race committee was not called on to arbitrate one dispute. The sportsmanship was excellent.

At the general assembly of members held August 16, many vital issues were brought up and discussed. These many points of dispute were ironed out for the formal presentation to the membership as a whole at the next election.

President Matthews voiced the opinion of the Board that a director for each State would be a more efficient way of covering the many tracks which are now completed or in construction. This suggestion was met with approval and Sec. Fitzgerald was instructed to set this provision in the annual ballot.

Much discussion was heard about advantages of club registration and a resolution to change Section 1, Article 13 to read that all clubs that are granted Race Sanctions must be registered Clubs with the National Assn., A.M.R.C.A. If this recommendation is passed it will mean that *ALL* clubs which intend to hold sanctioned races must comply with Section 1, Article 10 & 11.

While the above matter was being settled it was brought out by The National Secretary E. D. Fitzgerald that most clubs do not adhere very well to the many provisions in the rule book for the betterment of racing in general, particularly on those requiring the proper forms and procedures. Many Club Secretaries do not bother to fill in the form for a sanction although a copy of one is printed on page #4 of the rule book. Another very good idea voiced is the observance of Section VI, Article 11 on page #14. A line in this paragraph states that all requests for a sanction should be made far enough in advance for the better publicity value. A much better arrangement would be for *ALL* Clubs to mail in a complete racing date schedule before May 1st of each year. This would eliminate duplicate race dates by clubs in the same locale.

The 1948 National Championship and Convention date and location will be managed by a committee of active members not running for Office. This group will be appointed by Pres. Matthews and will represent each section of the country. They will consider all invitations, arrange for trophies, provide a program for determining one Champion regardless of class car and set a date which will be printed on the annual ballot together with the Sponsor Club. In view of this arrangement, the assembly agreed that next year the Nationals should be held other than the Mid-West. You interested Clubs should get busy now as the Long Island Auto Racing Society has already placed their bid for this very popular race.

It seems, by almost popular consent, that no suggestion for any rule changes regarding car specification were carried. Dividing the Proto class into custom and manufactured groups was not very popular with members present so nothing will be done about this matter until next year.

The finals are over, everybody just relaxing.

1947 Nationals—FINAL CHAMPIONSHIP RACES—August 17, 1947
CLASS 60-A, PROTOTYPE

Name		Car	Motor	¼ mile	½ mile	1 mile	AVG. MPH
Frank F. Robertson	Houston, Texas	Own	Dooling	116.12	111.87	110.93	112.97
Arthur Poore	Inglewood, Cal.	"	"	113.49	112.50	112.25	112.75
Norb. J. Janssen	Inglewood, Cal.	"	"	112.35	110.49	110.70	111.18
Edward N. Belm	Wyandotte, Mich.	"	Hornet	108.82	110.29	109.12	109.41
Elton Winchell	Detroit, Mich.	"	"	109.22	105.20	108.76	107.72
Col. Lotha Smith	Omaha, Neb.	Pacemaker	"	108.56	107.20	106.13	107.29
Clayton Johnson	Waukegan, Ill.	Own	"	108.56	107.52	105.50	107.19
S. A. Teasdale	Los Angeles, Cal.	"	Dooling	107.52	108.04	104.77	106.77
Pete Snideman	Lafayette, Ind.	Fox	Hornet	106.88	106.06	106.85	106.59
Comm. E. Luke	Washington, D. C.	Pacemaker	"	107.78	104.59	104.74	105.70
John Mayfield	Waukegan, Ill.	Own	"	107.91	106.32	102.59	105.60
Wm. W. Charles	Miami, Fla.	Fox	Dooling	109.62	107.91	97.85	105.12
M. L. (Red) Davis	Harvey, Ill.	Pacemaker	Hornet	106.63	101.80	105.35	104.59
H. W. Keathley	Glendale, Cal.	Own	Dooling	102.62	108.43	101.89	104.31
E. W. Leonard	Waukegan, Ill.	Pacemaker	Hornet	103.68	104.10	105.07	104.28
Earl Morris	Muncie, Ind.	"	"	103.80	102.44	102.59	102.94
Gale Francis	Lafayette, Ind.	Fox	"	no time	no time	105.82	35.27
Clifford Fox	Oakland, Cal.	"	"	no time	no time	pass	00.00

CLASS 60-C, SPUR GEAR

Name		Car	Motor	¼ mile	½ mile	1 mile	AVG. MPH
Geo. G. Coffield	Rock Island, Ill.	Coffield	Hornet	118.57	119.12	118.26	118.65
M. L. (Red) Davis	Harvey, Ill.	Borden	"	116.12	117.49	115.97	116.52
Skipper Ray	Shelbyville, Tenn.	Coffield	"	115.68	116.95	113.92	115.51
Warren Borden	Waukegan, Ill.	Borden	"	111.38	118.18	116.65	115.40
Virgil Paul	Waukegan, Ill.	"	"	114.64	115.83	114.24	114.90
Paul E. Fleener	Paris, Ill.	"	"	117.95	117.87	108.79	114.87
S. W. Prussian	Brookline, Mass.	McCoy	Dooling	113.20	116.73	114.54	114.82
J. C. Crossan	Rock Island, Ill.	Coffield	Hornet	112.35	116.12	114.75	114.40
J. R. Wetsel	Paris, Ill.	McCoy	McCoy	112.07	114.14	111.52	112.57
Fran Brennan	Monroe, La.	V-Car	Hornet	110.15	110.90	110.22	110.42
Carl Meyer	Flint, Mich.	"	"	109.35	109.75	107.71	108.93
C. E. Sapp	Peoria, Ill.	Own	"	108.95	107.71	109.22	108.62
Paul Schlosser	Silver Springs, Md.	"	"	108.82	109.35	106.19	108.12
Earl Stump	Harvey, Ill.	Borden	"	102.97	110.22	106.54	106.58
John Jaciow	Ludlow, Mass.	V-Car	"	105.14	105.20	107.91	106.08
Frank Matthews	Rockford, Ill.	Coffield	Own	no time	113.70	113.60	75.77
Glen Matthews	Rockford, Ill.	"	"	117.34	no time	98.98	72.10
Ralph Oliver	Peoria, Ill.	McCoy	Hornet	108.04	104.46	no time	70.83

You may be sure that next year you can race the same car which you now have. Manufacturers will be very glad to know that they will now be able to lower the present price of their cars as soon as the cost of dies, tools and jigs has been paid for by sales.

Last, but not least, the meeting reached the point where 1948 Officer Nominations were in order and this was accomplished despite the merrymaking antics and good humored banter by most of those attending.

FOR PRESIDENT

Mr. Glen Matthews nominated by Mr. Fairabend, secd. by Mr. Kirwan.

Mr. Fran Brennan nominated by Mr. Jack Sheridan, secd. by Mr. Janovics.

Mr. Stan Prussian nominated by Mr. Joe Olender, secd. by Col. Smith.

Dr. Paul Fleener nominated by Mr. Carl Meyer, secd. by Mr. Janovics.

Mr. Wilmer White nominated by Mr. Fran Brennan, secd. by Mr. F. Valeo.

(Doc. Fleener graciously rejected the nomination as an honor which his free time did not allow him to properly fulfill.)

FOR VICE PRESIDENT

Mr. John Mayfield nominated by Mr. Stevens, secd. by Mr. Mulhall.

Mr. Joe Olender nominated by Mr. Luttrell, secd. by Mr. Prussian.

Mr. Howard Frank nominated by Mr. Valeo, secd. by Mr. Sheridan.

Col. Lothar Smith nominated by Mr. Mayfield, secd. by Mr. Brennan.

Mr. Lloyd Baab nominated by Mr. Prussian, secd. by Mr. Mulhall.

(Mr. Olender rejected the nomination because of commitments which would hinder him in this office.)

Knowing that there was only *one* man in the country that could stick his neck out so far, the group re-nominated unanimously the present hard working, low-record holder, Secty. E. D. Fitzgerald.

R. D. Mulhall was nominated for Dir. at-large for cable tracks.

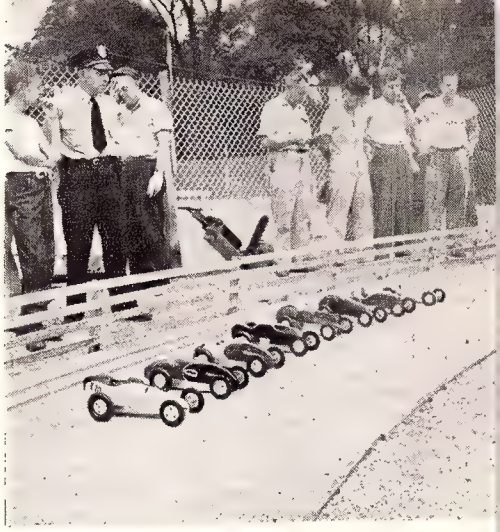
Wm. (Bill) Decker and Hubert (Red) Sudeth for Rails.

For this race, the AMERICAN MINIATURE RACING CAR ASSN. furnished thirty-six beautiful trophies for the three winners of each heat, in each class, in all three distance races. The best twelve were decided by the final run-offs but each man that made the finals received a trophy. Plaques were awarded to the twenty top men in each class, in each race.

At the banquet, a traveling case was presented to retiring Pres. Matthews by Senator Claghorn with appropriate remarks. As a gag, Mel Knell was presented with the end of a string and instructed to follow it to the bitter end. The end happened to be clear up in the other end of the banquet hall, fastened to the string was a stop-watch.

The Indianapolis tracks proved to be among the fastest in the country. The fellows were really surprised to find two such fine tracks completed on such short notice, that Indianapolis bunch deserves a lot of credit.

(Complete race results appear on page 36)



Top, lining up for the beauty contest, plenty hot and humid! Below, ironin' out those wrinkles.

ALL READY TO CHOW-DOWN!

Ready to participate in their favorite pastime. Conventioneers attending the banquet held on the evening of August 16th. Chow-Down, fellas!

FLEENER ON TOP AGAIN

By ED HITZE

The popular Doc Fleener from Paris, Illinois, ruled the roost with his new Pacemaker-Dooling combination at the All-Proto race held in LaFayette, Indiana on Sept. 7th. Doc had just 26 cars to beat and did it with ease with his 105.63 m.p.h. for the quarter-mile run. There were 17 Pacemaker's in the race out of a total of 27 cars. It might be said that this track in LaFayette "ain't what she used to be" after four tough winters. The speeds made told the story, the track was just plain rough! All the cars ran about 3 m.p.h. under their normal top speeds but the club announced a new 70 footer for next year and perhaps a twin track set-up. With just the protos running in this race, there was plenty of time to run off three heats instead of the usual two and sometimes one. There seemed to be ample time to look over the beautiful Columbian Park where the track is located. This is a perfect layout. Fine trophies were awarded to ninth place (the custom is one trophy for every 3 cars entered). Results of the all-proto race follow:

1.	Dr. P. Fleener	Pacemaker-Dooling	105.63
2.	G. Francis	Fox-Hornet	103.80
3.	K. C. Smith	Pacemaker-Hornet	103.21
4.	P. Snideman	Fox-Hornet	102.38
5.	C. Rea	Pacemaker-Hornet	101.69
6.	Ed Hitze	Own-McCoy	101.35
7.	Bill Cronin	Pacemaker-Hornet	100.67
8.	Ray Stevens	Pacemaker-Dooling	100.55
9.	Richy Stevens	Pacemaker-Hornet	100.22
10.	Phil Smith	Pacemaker-Hornet	100.11
11.	Bert Kuebler	Own-Hornet	100.00
12.	R. Carithers	Pacemaker-Hornet	99.33
13.	V. Cundiff	Pacemaker-Hornet	99.22
14.	Dr. E. Morris	Pacemaker-Hornet	99.00
15.	C. Kimmel	Pacemaker-Hornet	98.46
16.	J. R. Wetzel	Own-Hornet	98.03
17.	Joe Olender	Pacemaker-Hornet	97.71
18.	Francis Strong	Pacemaker-Hornet	96.95
19.	Carl Franz	Own-Hornet	96.67
20.	Clyde Allen	Pacemaker-Hornet	96.67
21.	Curly Haughn	Own-Hornet	95.23
22.	J. A. Briggs	Pacemaker-Hornet	93.16
23.	Sherrel Brown	Invader-McCoy	91.93
24.	Sam Armstrong	Pacemaker-Hornet	90.63
25.	Allen Payne	Own-McCoy	86.45
26.	Frank Johnson	Invader-McCoy	83.33
27.	Joe Olender	Pacemaker-Hornet	pass

READING HOLIDAY MEET

The Reading Mighty Midgets held their second meet on Labor Day, 33 protos and 5 Hot Rods were entered. The meet was run under IMRCA rules and regulations but membership was not required. Prizes were given to tenth place in proto and to third in Hot Rod. A number of spur cars were entered and a prize was given for first place.

The Reading club extend their thanks to the Long Island, Harrisburg, Allentown, York and Tri-Cities Clubs for their generous help, it was greatly appreciated.

At this writing, the club has no races scheduled definitely but for more information contact A. C. Lieb, Jr., 1334 Birch St., Reading, Pa.

FROM SALINA

By JOE ADDISON

The Salina Club has not broken any National speed records, but has been pushing forward steadily both in speed and improved track conditions. With the Labor Day race coming up, feverish effort was put forth which rendered two new starting stands, two additional pit benches and extended electrical facilities. A coat of paint was added where ever possible. One of the out of town racers mentioned that this track was the only one he found with running water (to drink!).

The Labor Day races were claimed a success having a total entry list of 33. Processing and the quarter mile were taken care of the first day and on Labor Day the half and mile events were run off plus making the awards. Trophies and prizes were awarded to fourth place in the six events. The club wishes to thank all those who entered the race and helped to make it a success.

Joe Addison established a new track record for spur of 106.38 and Bill StClair a 99 plus for proto only to find dirt in their eyes when two "out of towners", Al Goedde and Geo. McKee drove in with 106.68 and 100.38 respectively. "Corky" StClair had a little trouble getting his face back in shape from the smile that occurred after running 104.52. Ben Smith jumped up to 104.23 after crawling around the lower ninety's.

Charley Adams of Topeka was the hard luck man. His fast proto broke loose the day before racing started and really got banged up. He managed to patch it up that night and was in there pitching the next day. Ev Vernon usually running spur well over the century mark failed to get going at all. (Musta been the wrong kinda beer Ev.) The evening of the first days racing was spent at the Broadway cafe eating and raising speed. (the latter verbal!)

Results of the Labor Day race follow:

SPUR GEAR ONE MILE

1.	Otis Cline	McCoy-Hornet	104.25
2.	Joe Addison	McCoy-Hornet	103.62
3.	Ben Smith	McCoy-Hornet	103.24
4.	Corky St. Clair	Mathews-McCoy	100.84
5.	Bill Kaiser	McCoy-Hornet	100.55
6.	Floyd King	McCoy-Hornet	98.84
7.	Jack Smith	McCoy-Hornet	98.36
8.	Al Goedde	McCoy-Hornet	97.79
9.	Don Moden	McCoy-Hornet	95.79
10.	Tobe Perry	McCoy-McCoy	95.69
11.	Bill Kaiser	McCoy-McCoy	94.41
12.	Chuck Hayes	McCoy-Hornet	93.11
13.	Herb Virden	McCoy-McCoy	90.38
14.	Otis Cline	Own-Hornet	no time
15.	Don Fair	SuperSonic-Hornet	no time
16.	Ev Vernon	McCoy-Hornet	no time

PROTO ONE MILE

1.	George McKee	Pacemaker-Hornet	100.39
2.	Elmer Sordelet	Pacemaker-Hornet	93.09
3.	Ken Delanie	Invader-McCoy	92.85
4.	Bill Preston	Dooling-McCoy	90.68
5.	Lewis Woolard	Invader-Hornet	89.06
6.	Otis Cline	Pacemaker-Hornet	88.12
7.	Hugh Wilhite	Invader-McCoy	86.70
8.	Bob Whitsitt	Invader-McCoy	86.39
9.	Pete Bowman	Invader-McCoy	85.51
10.	John Fulton	Pacemaker-Hornet	85.24
11.	Max Bronson	Invader-McCoy	83.44
12.	Alan Strout	Invader-McCoy	83.04
13.	Charles Adams	Dooling-McCoy	75.72
14.	Bob Leiker	Dooling-Dooling	73.14
15.	John Harmon	Invader-McCoy	no time
16.	Bill St. Clair	Pacemaker-Hornet	no time
17.	Elmer Sordelet	Pacemaker-Dooling	no time

SPUR GEAR—¼ MILE

1.	Al Goedde	McCoy-Hornet	106.13
2.	Joe Addison	McCoy-Hornet	103.44
3.	Herb Virden	McCoy-McCoy	98.36
4.	Corky St. Clair	Mathews-McCoy	98.25
5.	Otis Cline	McCoy-Hornet	96.77
6.	Tobe Perry	McCoy-McCoy	96.46

SPUR GEAR—½ MILE

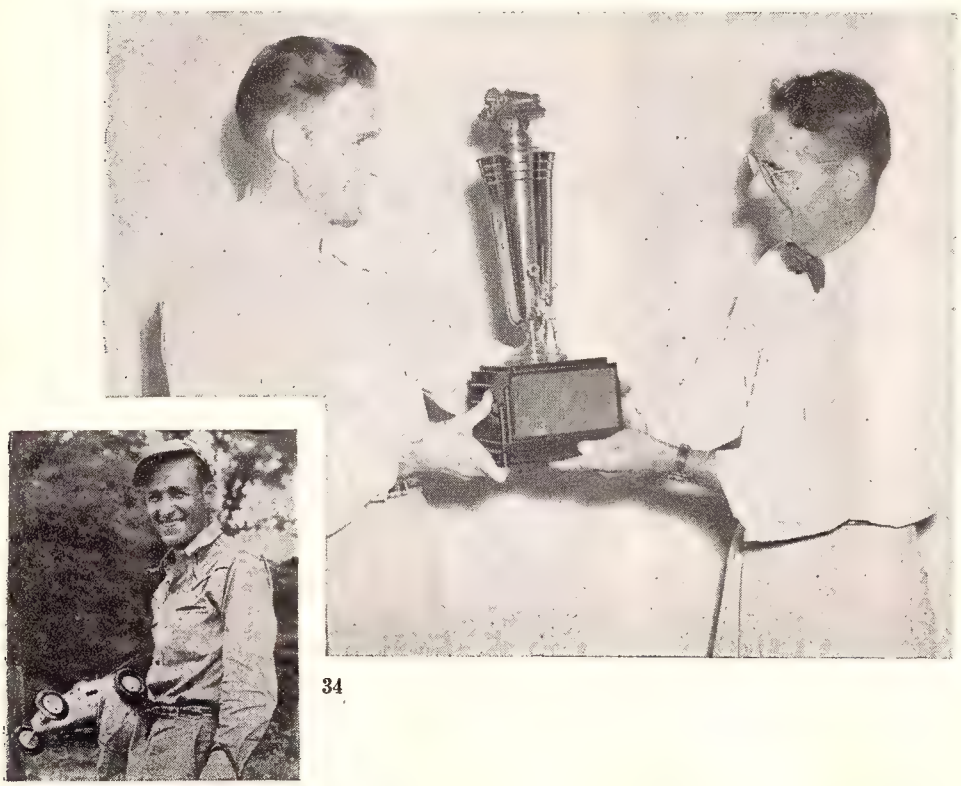
1.	Al Goedde	McCoy-Hornet	106.13
2.	Joe Addison	McCoy-Hornet	104.71
3.	Corky St. Clair	Mathews-McCoy	104.52
4.	Chuck Hayes	McCoy-Hornet	101.32
5.	Bill Kaiser	McCoy-Hornet	100.89
6.	Otis Cline	McCoy-Hornet	100.72

PROTO—¼ MILE

1.	George McKee	Pacemaker-Hornet	97.50
2.	Elmer Sordelet	Pacemaker-Dooling	96.05
3.	Bill St. Clair	Pacemaker-Hornet	93.07
4.	Bill Preston	Dooling-McCoy (Mag.)	92.78
5.	John Fulton	Pacemaker-Hornet	92.02
6.	Lewis Woolard	Invader-Hornet	90.27

PROTO—½ MILE

1.	George McKee	Pacemaker-Hornet	100.05
2.	Ken Delanie	Invader-McCoy	99.00
3.	Elmer Sordelet	Pacemaker-Dooling	96.00
4.	Elmer Sordelet	Pacemaker-Hornet	93.11
5.	Otis Cline	Pacemaker-Hornet	92.26
6.	Lewis Woolard	Invader-Hornet	91.00



Fran Brennan presenting the Championship Proto trophy to Frank Robertson. Frank hails from Houston, Texas, and recently turned the quarter mile at 116.13. In the inset, Frank is shown with his fast proto.

TRI-CITY CLUB RACE SUCCESSFUL

DESPITE an overcast sky, the races at Bradley Park, Peoria, Ill., sponsored by the Tri-City Miniature Race Car Club, June 22nd, were well attended by participants and spectators alike. 49 entries in Spur and Proto Classes gave the 2500 spectators a real thrill.

The race was in the nature of an experiment on the part of the Tri-City Club, inasmuch as none of the members were eligible for trophies, thus giving more places and permitting some of the regulars who would not place in the trophy class a good chance for some of the hardware.

The Tri-City Club is very much indebted to the Peoria Club for the use of their fine track, while their own track is being built at East Moline, Ill. Results follow:

SPUR GEAR

Car—Motor	MPH
M. Davis, Coffield—Hornet	112.50
F. Mathews, Coffield—Coffield	110.56
B. Massi, Mathews—Hornet	109.75
H. Lafflame, Mathews—Hornet	107.01
J. Carlson, Mathews—Hornet	106.76
C. Sapp, Mathews—Hornet	106.63
G. Mathews, Own—Hornet	106.13
R. Stephens, Hornet—McCoy	105.63
F. Brennan, Mathews—Hornet	105.26
S. Ray, Coffield—Coffield	105.26

(Non-Trophy Winners: George Coffield, Richard Brooks and John Crossan)

PROTO

M. Davis, Own—Hornet	106.88
C. Johnston, Own—Hornet	105.75
J. Carlson, Own—Hornet	101.58
L. Timberlake, Pacemaker—Hornet	99.77
J. Kern, Own—Hornet	99.11
F. Mathews, Hook—Hornet	98.68
M. Knell, Pacemaker—Hornet	98.68
J. Ray, Pacemaker—Hornet	98.36
L. Mathews, Pacemaker—Hornet	98.25
E. Leonard, Pacemaker—Hornet	96.77

NEWS and VIEWS

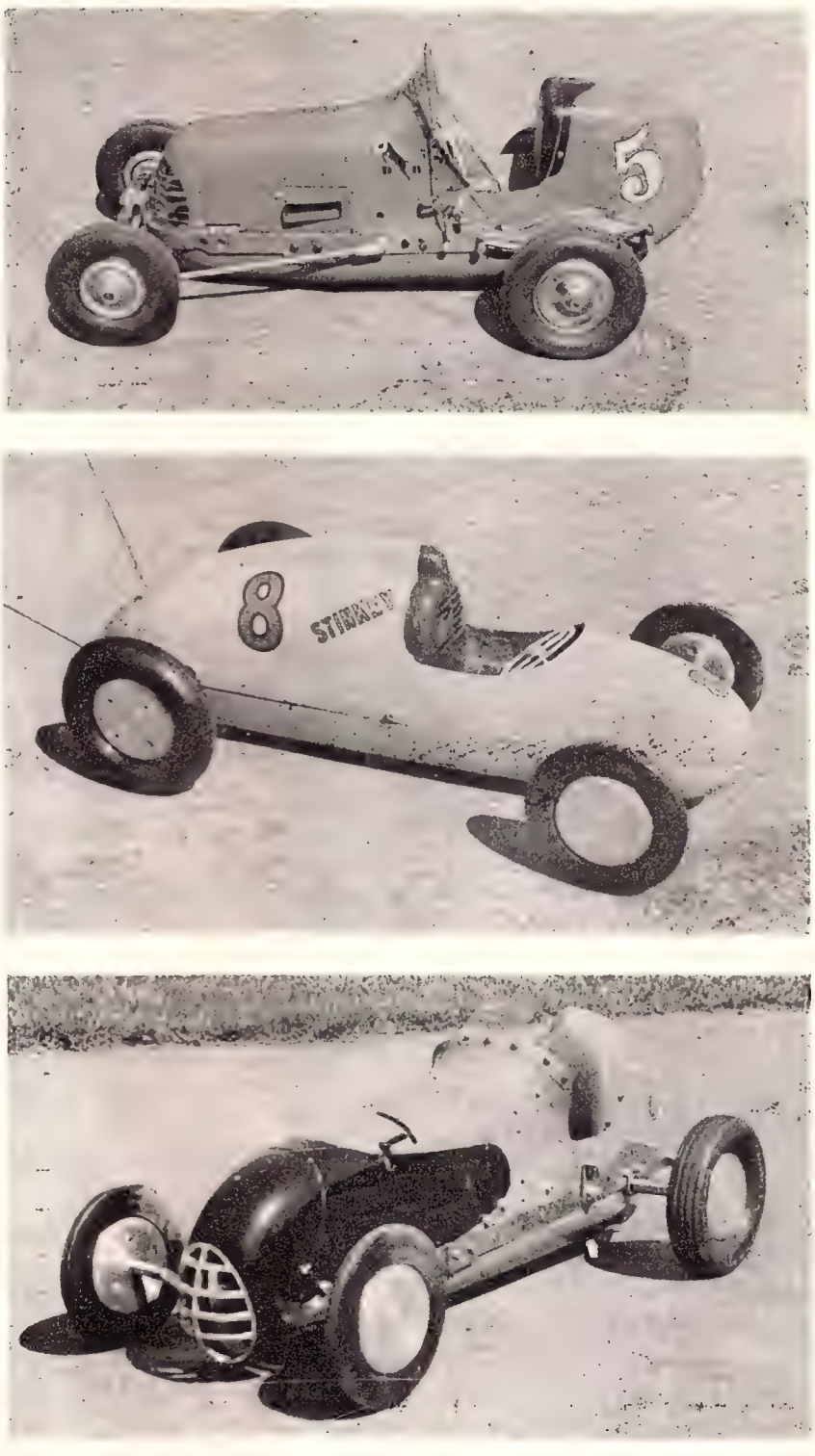
FROM DOWN UNDER

THE following letter was just received from Bruce Cameron of Melbourne, Australia, and it is interesting to note the difficulties under which the boys down there have to race:

Dear Sir: I am writing in reference to a notice that I saw in THE MODEL CRAFTSMAN about a release of back numbers. I am very interested in the model race cars and I would like to take this opportunity to let you know that we have a club going over here, which was started about six months ago. The speeds up to date are not very spectacular but they are becoming higher at every meeting. The only tracks we have had up to date have been tennis courts although we ran our championships in a suburban town hall. Naturally, we have only cable cars. The engine position here is not very good, the only suitable engine being a three-port, 8.2 c.c. "Whirlwind", which when new will rev at about 7000 RPM. Some of the chaps have had these to about 12,000 RPM by fitting a rotary valve. Because of the shortage of good engines, some of the chaps have made their own and some very good little jobs have been turned out.

There are two sets of castings available for cars, one set containing sand castings for chassis rails, rear axle housing, front axle and wheel discs. These are available in either aluminum or gunmetal. The other set is cast in aluminum, the body being cast as well as chassis rails, wheels, front axle housing and rear axle, this car being a front wheel drive. When finished, it has a strong resemblance to your beach cars.

Some time ago, a couple of chaps received McCoy "60" engines from America, but as yet these have not made their appearance on the track. But once they "get cracking," I don't see what chance we junior chaps are going to have. I might mention that any members under twenty-one years of age are classed as juniors. . . . *Bruce Cameron, 156 Gower St., E. Preston N 18, Melbourne.*



Take a gander at three slick little cars owned by Dick Bell of the Tri-Cities Club, Endicott, N. Y. At the top is "Destry," hammered out of furniture steel—all fully sprung. Center photo shows his "Stinkey" car having a fibreglas top, and below, his "Little Jeff."

CABLE NATIONALS

(*Continued from page 33*)

QUALIFICATION HEATS

SPUR GEAR ¼ MILE

1. Glen Matthews, Rockford, Ill. 120.48
2. Paul Fleener, Paris, Ill. 117.64
3. George G. Coffield, Rock Island, Ill. 117.18
4. S. W. Prussian, Brookline, Mass. ..116.88
5. Warren Borden, Waukegan, Ill. 115.68
6. Ralph Oliver, Peoria, Ill. 115.23
7. Sam Stump, Harvey, Ill. 114.94
8. Frank Matthews, Rockford, Ill. 114.06
9. M. L. Davis, Harvey, Ill. 113.35
10. S. W. Prussian, Brookline, Mass. ..113.20*
11. Virgil Paul, Waukegan, Ill. 113.06
12. J. R. Wetsel, Paris, Ill. 112.92
13. George Coffield, Rock Island, Ill. ..112.78*
14. Earl Stump, Harvey, Ill. 112.07
15. J. C. Crossan, Rock Island, Ill. 111.94
16. C. E. Sapp, Peoria, Ill. 111.52
17. Warren Borden, Waukegan, Ill. ...110.83*
18. Carl Meyer, Flint, Mich. 109.89
19. Louis J. Beri, Detroit, Mich. 109.22
20. Oscar W. Hamm, Moline, Ill. 109.09
21. Wm. Shenk, Detroit, Mich. 108.95
22. Fran Brennan, Monroe, La. 108.95
23. Paul Schlosser, Silver Springs, Md. 108.04
24. John Jaciow, Ludlow, Mass. 107.52
25. Jack Ray, Shelbyville, Tenn. 107.27
26. C. E. Sapp, Peoria, Ill. 105.14*
27. Joe V. Gaebler, Indianapolis, Ind. ..105.75
28. Philip E. Smith, Newcastle, Ind. ...105.63
29. James G. Eberhart, Troy, Ohio 105.01
30. Skipper Ray, Shelbyville, Tenn. 105.01
31. Geo. A. Hamm, Moline, Ill. 104.40
32. Howard W. Frank, New York City..104.28
33. O. W. Whiteside, Manchester, Conn. 104.16
34. J. C. Crossan, Rock Island, Ill. ...103.80*
35. George L. Allen, St. Louis, Mo. ...102.50
36. John F. Mayhew, Manchester, Conn. 100.44
37. Robert E. Kirwan, Arlington, Va. .. 99.88
38. Fred W. Keller, Monroe, La. 98.68
39. L. Weisenborn, Brookville, Ohio.... 96.56
40. Ray Hunter, Cleveland, Ohio 94.83
41. Ed Fitzgerald, Hempstead, N. Y. .. 93.36
42. Bill Cronin, Hartford City, Ind. ... 89.55
43. Al. Winter, St. Louis, Mo. 82.72
44. John Carlsou, Chicago, Ill. .....no time
45. Julius Dombo, Cleveland, Ohio ...no time
46. Stu Aleshire, Los Angeles, Cal. ...no time
47. Fred Lunning, Long Beach, N. Y. .no time
48. Herbert Herrel, Columbus, Ohio...no time
49. Frank Valeo, Roslyn Hts., N. Y...no time
50. Frank J. Wolf, College Pt., N. Y..no time
51. Chas. Rinehart, Brookville, Ohio...no time
52. Otis Cline, Carterville, Mo. .....no time
53. Otis Cline, Carterville, Mo. .....no time*
54. Walter E. Werntz, Cleveland, Ohio.no time
55. Robert Leibrock, Hamilton, Ohio...no time
56. Arnold Gill, Hamilton, Ohio.....no time
57. Walt Glatthaar, E. St. Louis, Ill...no time

Fran Brennan making final adjustments.

SPUR GEAR ½ MILE

1. Warren Borden, Waukegan, Ill. ...118.96
2. Paul E. Fleener, Paris, Ill. 118.26
3. Warren Borden, Waukegan, Ill. ...118.03*
4. George Coffield, Rock Island, Ill. ...118.03
5. M. L. Davis, Harvey, Ill. 117.11
6. Virgil Paul, Waukegan, Ill. 116.35
7. S. W. Prussian, Brookline, Mass. ..116.35
8. J. C. Crossan, Rock Island, Ill. ...115.23
9. Skipper Ray, Shelbyville, Tenn. ...115.01
10. George Coffield, Rock Island, Ill. ...115.01*
11. J. R. Wetsel, Paris, Ill. 113.70
12. Frank Matthews, Rockford, Ill. 113.56
13. J. C. Crossan, Rock Island, Ill. ...113.06*
14. Oscar W. Hamm, Moline, Ill. 112.64
15. S. W. Prussian, Brookline, Mass. ..112.42*
16. Sam Stump, Harvey, Ill. 112.21
17. Earl Stump, Harvey, Ill. 111.52
18. Ralph Oliver, Peoria, Ill. 111.38
19. Wm. Shenk, Detroit, Mich. 109.82
20. Paul Schlosser, Silver Springs, Md. 109.62
21. Jack Ray, Shelbyville, Tenn. 109.15
22. C. E. Sapp, Peoria, Ill. 108.89
23. John Jaciow, Ludlow, Mass. 107.71
24. John Carlson, Chicago, Ill. 107.65
25. Louis J. Beri, Detroit, Mich. 107.59
26. Carl Meyer, Flint, Mich. 107.07
27. Joe V. Gaebler, Indianapolis, Ind. ..106.69
28. C. E. Sapp, Peoria, Ill. 105.94*
29. Fran Brennan, Monroe, La. 105.63
30. Philip E. Smith, Newcastle, Ind. ...104.71
31. Walt Glatthaar, E. St. Louis, Ill. ...104.22
32. Walter E. Werntz, Cleveland, Ohio..104.16
33. O. W. Whiteside, Manchester, Conn. 103.92
34. Frank J. Wolf, College Pt., N. Y. ...103.56
35. Herbert Herrel, Columbus, Ohio ...102.63
36. L. Weisenborn, Brookville, Ohio....100.67
37. Fred W. Keller, Monroe, La. 99.88
38. John F. Mayhew, Manchester, Conn. 99.39
39. Otis Cline, Carterville, Mo. 99.28
40. Chas. Rinehart, Brookville, Ohio ... 98.68
41. George L. Allen, St. Louis, Mo. 98.52
42. Ray Hunter, Cleveland, Ohio 97.08
43. James G. Eberhart, Troy, Ohio 95.74
44. Otis Cline, Carterville, Mo. 95.64*
45. Ed. Fitzgerald, Hempstead, N. Y. ... 92.83
46. Al. Winter, St. Louis, Mo. 91.97
47. George A. Hamm, Moline, Ill. 90.81
48. Robert Leibrock, Hamilton, Ohio ... 88.53
49. Howard W. Frank, New York, N. Y. 86.70
50. Julius Dombo, Cleveland, Ohio ...no time
51. Stu Aleshire, Los Angeles, Cal. ...no time
52. Fred Luning, Long Beach, N. Y. ...no time
53. Glen Matthews, Rockford, Ill. ....no time
54. Robert E. Kirwan, Arlington, Va...no time
55. Frank Valeo, Roslyn Hts., N. Y. ..no time
56. Bill Cronin, Hartford City, Ind. ..no time
57. Arnold Gill, Hamilton, Ohio .....no time

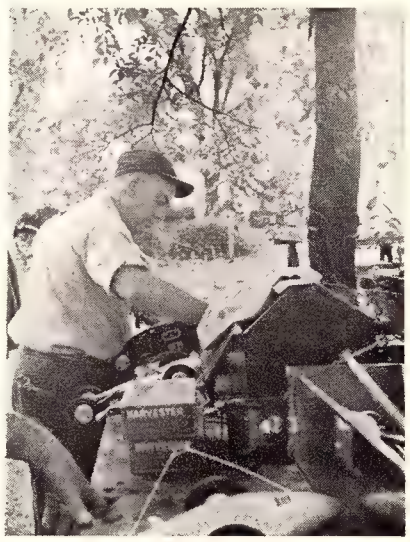
SPUR GEAR 1 MILE

1. George G. Coffield, Rock Island, Ill. 118.65
2. Warren Borden, Waukegan, Ill. 117.64
3. S. W. Prussian, Brookline, Mass. ...115.56
4. J. C. Crossan, Rock Island, Ill. ...114.86
5. Skipper Ray, Shelbyville, Tenn. ...114.64
6. Frank Matthews, Rockford, Ill. 111.62
7. John Jaciow, Ludlow, Mass. 110.22
8. C. E. Sapp, Peoria, Ill. 108.63
9. Carl Meyer, Flint, Mich. 108.33
10. Earl Stump, Harvey, Ill. 108.20
11. Fran Brennan, Monroe, La. 107.78
12. Paul Schlosser, Silver Springs, Md. 106.10
13. Herbert Herrel, Columbus, Ohio ...106.10
14. Joe V. Gaebler, Indianapolis, Ind. ..105.60
15. Jack Ray, Shelbyville, Tenn. 103.77
16. Wm. Shenk, Detroit, Mich. 102.79
17. Walt Glatthaar, E. St. Louis, Ill. ...102.38
18. Frank Valeo, Roslyn Hts., N. Y. ...102.09
19. Al. Winter, St. Louis, Mo. 100.33
20. Fred W. Keller, Monroe, La. 99.72
21. John F. Mayhew, Manchester, Conn. 98.68
22. L. Weisenborn, Brookville, Ohio ... 95.66
23. George L. Allen, St. Louis, Mo. 92.59
24. Howard W. Frank, New York, N. Y. 87.08
25. Chas. Rinehart, Brookville, Ohio.... 66.80

ALL OTHER ENTRIES PASSED

PROTOTYPE ¼ MILE

1. Frank F. Robertson, Houston, Tex. .112.07
2. Clifford N. Fox, Oakland, Cal. 111.94
3. Arthur Poore, Inglewood, Cal. 109.09
4. Norb. J. Janssen, Inglewood, Cal. ...108.04
5. H. W. Keathley, Glendale, Cal. ...108.04
6. M. L. (Red) Davis, Harvey, Ill. ..107.78
7. Gale Francis, Lafayette, Ind. 106.00
8. Frank F. Robertson, Houston, Tex. .106.00*
9. Chas. E. Meyer, Flint, Mich. 105.75
10. Clayton Johnson, Waukegan, Ill. 105.75
11. S. A. Teasdale, Los Angeles, Cal. ..105.38
12. Pete Snideman, Lafayette, Ind. 104.65
13. John R. Kern, Champaign, Ill. 104.65
14. Lotha A. Smith, Omaha, Neb. 104.04
15. Howard W. Frank, New York, N. Y. 103.80
16. Philip E. Smith, Newcastle, Ind. ...103.80
17. Skipper Ray, Shelbyville, Tenn. ...103.44
18. Jack Nishimoto, Detroit, Mich. 103.09
19. E. W. Leonard, Waukegan, Ill. 102.85
20. Dale Martell, Detroit, Mich. 102.62
21. Joe Olender, Indianapolis, Ind. 102.62
22. Lotha A. Smith, Omaha, Neb. 102.62
23. Joe V. Gaebler, Indianapolis, Ind. ..102.38
24. Frank J. Wolf, College Pt., N. Y. ..102.27
25. Earl E. Morris, Muncie, Ind. 102.27
26. Elton Winchell, Detroit, Mich. 102.15
27. John Mayfield, Waukegan, Ill. 101.92
28. Howard Harrison, Plainfield, Ind. ..101.69
29. Wm. W. Charles, Miami, Fla. 100.44
30. R. E. Patrick, East Point, Ga. 99.66
31. John Brake, Waukegan, Ill. 99.66
32. Edward N. Behm, Wyandotte, Mich. 99.22
33. J. R. Wetsel, Paris, Ill. 99.00
34. R. M. Stevens, Indianapolis, Ind. .. 99.00
35. Fran Brennan, Monroe, La. 98.79
36. Marjorie Janssen, Inglewood, Calif. . 97.71
37. Paul E. Fleener, Paris, Ill. 97.50
38. Comm. E. Luke, Washington, D. C. 97.29
39. K. C. Smith, Indianapolis, Ind. ... 97.19
40. B. Janovics, Jr., Trenton, N. J. ... 97.08
41. Clarence Dunlap, Cleveland, Ohio .. 96.35
42. Elton Winchell, Detroit, Mich. 96.15*
43. Ralph L. Kade, Detroit, Mich. 95.03
44. Clifford Drennon, Atlanta, Ga. 94.83
45. Hap Wyckoff, Chicago, Ill. 94.33
46. Mrs. Hap Wyckoff, Chicago, Ill. ... 94.33
47. R. E. Beinke, Indianapolis, Ind. ... 92.21
48. Guy Richard, Akron, Ohio 91.37
49. E. E. Luttrell, Newcastle, Ind. 91.37
50. Arthur Poore, Inglewood, Cal. 90.81*
51. Earl Stump, Harvey, Ill. 89.19
52. Clayton Rea, Hartford City, Ind. ... 88.32
53. Wm. W. Charles, Miami, Fla. 85.79
54. Carl Meyer, Flint, Mich. 84.66
55. Carl Franz, Lafayette, Ind. 79.36
56. Francis D. Strong, Indianapolis, Ind. 73.11
57. Frank Skerbinc, Detroit, Mich. ...no time
58. Walter E. Werntz, Cleveland, Ohio.no time
59. Edward N. Behm, Wyandotte, Mich. no time*
60. Earl Stump, Harvey, Ill. .....no time*
61. John Carlson, Chicago, Ill. .....no time
62. Bill Cronin, Hartford City, Ind. ..no time
63. John F. Bischoff, Sharon, Pa. ....no time
64. J. C. Crossan, Rock Island, Ill. ..no time
65. Paul Schlosser, Washington, D. C. no time
66. Otis Cline, Carterville, Mo. .....no time
67. Thomas Adams, Frankfort, Ind. ...no time
68. Glen Matthews, Rockford, Ill. .....no time
69. Paul E. Fleener, Paris, Ill. .....no time*
70. Ed. Hitze, Lafayette, Ind. .....no time
71. L. E. Wallace, Indianapolis, Ind. ..no time
72. H. L. Elfner, Indianapolis, Ind. ...no time



"Red" Davis checking up on his fast proto!

PROTOTYPE ½ MILE

1. Arthur Poore, Inglewood, Cal. 112.92
2. Clifford N. Fox, Oakland, Cal. 110.70
3. Norb. J. Janssen, Inglewood, Cal. ..110.70
4. Edward N. Behm, Wyandotte, Mich. 110.09
5. Pete Snideman, Lafayette, Ind. 108.82
6. Frank F. Robertson, Houston, Texas 108.69
7. S. A. Teasdale, Los Angeles, Cal. ..108.43
8. Elton Winchell, Detroit, Mich. 107.46
9. Gale Francis, Lafayette, Ind. 107.33
10. John Mayfield, Waukegan, Ill. 107.01
11. Clayton Johnson, Waukegan, Ill. 106.69
12. Chas. E. Meyer, Flint, Mich. 106.25
13. Comm. E. Luke, Washington, D. C. 106.25
14. M. L. (Red) Davis, Harvey, Ill. 105.94
15. Dale Martell, Detroit, Mich. 105.82
16. Ed Hitze, Lafayette, Ind. 104.71
17. Wm. W. Charles, Miami, Fla. 104.40
18. Earl E. Morris, Muncie, Ind. 104.22
19. Hap Wyckoff, Chicago, Ill. 103.86
20. Arthur Poore, Inglewood, Cal. 103.44*
21. E. W. Leonard, Waukegan, Ill. 102.44
22. Howard W. Frank, New York, N. Y. 102.21
23. John Brake, Waukegan, Ill. 102.04
24. Jack Nishimoto, Detroit, Mich. 101.58
25. H. W. Keathley, Glendale, Cal. 101.52
26. Lotha A. Smith, Omaha, Neb. 101.35
27. Skipper Ray, Shelbyville, Tenn. 100.95
28. R. E. Patrick, East Point, Ga. 100.84
29. Mrs. Hap Wyckoff, Chicago, Ill. 100.72
30. Philip E. Smith, Newcastle, Ind. 100.67
31. Marjorie Janssen, Inglewood, Cal. ...100.61
32. Lotha A. Smith, Omaha, Neb. 100.11
33. Clifford Drennon, Atlanta, Ga. 100.11
34. L. E. Wallace, Indianapolis, Ind. 100.00
35. Frank J. Wolf, College Pt., N. Y... 99.77
36. Joe Olender, Indianapolis, Ind. 99.77
37. R. M. Stevens, Indianapolis, Ind. .. 99.72
38. Joe V. Gaebler, Indianapolis, Ind. .. 99.22
39. K. C. Smith, Indianapolis, Ind. 98.95
40. Glen Matthews, Rockford, Ill. 98.90
41. B. Janovics Jr., Trenton, N. J. 98.79
42. Paul E. Fleener, Paris, Ill. 94.88

43. Earl Stump, Harvey, Ill. 94.83
44. Frank Skerbinc, Detroit, Mich. 94.43
45. Earl Stump, Harvey, Ill. 94.29*
46. Guy Richard, Akron, Ohio 93.84
47. J. R. Wetsel, Paris, Ill. 93.75
48. Howard Harrison, Plainfield, Ind. .. 93.65
49. R. E. Beinke, Indianapolis, Ind. ... 90.13
50. J. C. Crossan, Rock Island, Ill. ... 88.75
51. Otis Cline, Carterville, Mo. 85.30
52. Fran Brennan, Monroe, La. 85.14
53. E. E. Luttrell, Newcastle, Ind. 83.37
54. Paul Schlosser, Washington, D. C... 83.14
55. Thomas Adams, Frankfort, Ind. 78.74
56. John F. Bischoff, Sharon, Pa. 70.92
57. Wm. W. Charles, Miami, Fla. ...no time*
58. Frank F. Robertson, Houston, Tex. no time*
59. Clarence Dunlap, Cleveland, Ohio. .no time
60. Paul E. Fleener, Paris, Ill. .....no time*
61. Francis D. Strong, Indianapolis, Ind. no time
62. Bill Cronin, Hartford City, Ind. ...no time
63. Elton Winchell, Detroit, Mich. ...no time*
64. Carl Meyer, Flint, Mich. .....no time
65. Carl Franz, Lafayette, Ind. .....no time
66. Ralph L. Kade, Detroit, Mich. ...no time
67. Edward N. Behm, Wyandotte, Mich. no time*
68. John Carlson, Chicago, Ill. .....no time
69. Walter E. Werntz, Cleveland, Ohio .no time
70. John R. Kern, Champaign, Ill. ....no time
71. Clayton Rea, Hartford City, Ind. ..no time
72. H. L. Elfner, Indianapolis, Ind....no time

PROTOTYPE 1 MILE

1. Arthur Poore, Inglewood, Cal. 111.73
2. Norb. J. Janssen, Inglewood, Cal. ..111.00
3. Clifford N. Fox, Oakland, Cal. 110.70
4. Elton Winchell, Detroit, Mich. 109.25
5. Edward N. Behm, Wyandotte, Mich. 108.27
6. Lotha A. Smith, Omaha, Neb. 107.55
7. Pete Snideman, Lafayette, Ind. 107.33
8. Wm. W. Charles, Miami, Fla. 107.14
9. S. A. Teasdale, Los Angeles, Cal. ..106.92
10. Clayton Johnson, Waukegan, Ill.....106.38
11. John Mayfield, Waukegan, Ill. 106.16
12. Frank F. Robertson, Houston, Tex. 105.44*
13. Comm. E. Luke, Washington, D. C. 105.20
14. E. W. Leonard, Waukegan, Ill. 105.32
15. R. E. Patrick, East Point, Ga. 103.50
16. John Brake, Waukegan, Ill. 103.47
17. Earl E. Morris, Muncie, Ind. 103.21
18. Mrs. Hap Wyckoff, Chicago, Ill. ...103.06
19. Gale Francis, Lafayette, Ind. 102.56
20. Arthur Poore, Inglewood, Cal. 102.44*
21. Chas. E. Meyer, Flint, Mich. 102.30
22. Philip E. Smith, Newcastle, Ind. ..102.15
23. Ed Hitze, Lafayette, Ind. 101.75
24. H. W. Keathley, Glendale, Cal. 101.72
25. Joe V. Gaebler, Indianapolis, Ind. ..100.41
26. Lotha A. Smith, Omaha, Neb. 98.76*
27. Glen Matthews, Rockford, Ill. 98.60
28. L. E. Wallace, Indianapolis, Ind. ... 97.64
29. Howard W. Frank, New York, N. Y. 97.13
30. Joe. Olender, Indianapolis, Ind. 96.10
31. Hap Wyckoff, Chicago, Ill. 95.56
32. Clifford Brennon, Atlanta, Ga. 95.56
33. R. M. Stevens, Indianapolis, Ind. .. 93.07
34. E. E. Luttrell, Newcastle, Ind. 91.37
35. R. E. Beinke, Indianapolis, Ind. 90.86
36. Fran Brennan, Monroe, La. 88.51
37. Jack Nishimoto, Detroit, Mich. 84.64

ALL OTHER ENTRIES PASSED
* Second Entry.

HARVEY TRACK OPENS WITH BANG

By HAP WYCKOFF

The Harvey Model Race Car Club held the first race on their new 84 ft. track on Aug. 24, and in spite of the 100 degree heat, it was a great success. Glen Matthews of Rockford, Ill., AMRCA President, set a new record for the ¼ mile on a 1/20 mile track. Doc Fleener and Red Davis also broke the previous record, but President Glen was tops with 120.32 miles per hour.

54 cars were entered, coming from Ill., Ind., Wisc. and Missouri. Several new faces were present with Gene Sheppard and Bill Ferguson competing in their first real race. One trophy was awarded for each three cars, Harvey Club members did not take trophies, even though they turned in some good times.

A Pacemaker, donated by Standard Machine Works, with Hornet Motor, donated by Trosts Hobby Shop, was won by H. Holdermann of Chicago in the drawing held between races. He is an enthusiastic new-comer to the hobby, but big things are expected of him as his "prize" had been track tested in excess of 100 mph. Drawings were also made for two wind-up cars donated by Steve's Hobby Shop, Chicago and for tires donated by Arnolds' Hobby Shop of Harvey. A large trophy was given for the best looking proto and was won by John Brake of Waukegan. As an extra between race feature, John Carlson ran his Hot Rod at 98.46 mph. to equal the track record. The results of the day's racing follow:

PROTOS

1. G. Meyer .....Own-Hornet 106.50
2. M. Davis .....Pacemaker-Hornet .106.25
3. C. Johnson .....Own-Hornet 104.77
4. J. Kern .....Own-Hornet 103.92
5. J. Brake .....Own-Hornet 103.68
6. F. Mathews .....Own-Hornet 102.04
7. E. Leonard .....Own-Hornet 101.01
8. J. Wetzell .....Own-Hornet 100.67
9. P. Snideman ....Own-Hornet 100.44
10. W. Theissen ....Pacemaker-Hornet . 99.00
11. H. Demeire .....Pacemaker-Hornet . 98.79
12. J. Olender .....Pacemaker-Hornet . 98.68
13. Jr. Wyckoff .....Own-Hornet 98.57
14. P. Fleener .....Pacemaker-Hornet . 97.40
15. R. Stevens .....Pacemaker-Hornet . 97.29
16. C. Haugh .....Own-Hornet 96.77
17. Mrs. Hap Wyckoff .Own-Hornet 96.77
18. H. Laflamme ....Pacemaker-Hornet . 96.67
19. M. Geary .....Pacemaker-Hornet . 95.74
20. C. Meyer .....Own-Dooling 95.53
21. D. Cailey .....Own-Hornet 94.93
22. C. Franz .....Own-Hornet 92.59
23. W. Ferguson ....Invader-McCoy ... 86.95
24. G. Sheppard ....Dooling-McCoy ... 84.66

SPUR GEAR

1. G. Matthews ....Own-Hornet 120.32
2. P. Fleener .....Borden-Hornet 119.68
3. M. Davis .....Borden-Hornet 117.80
4. V. Paul .....Borden-Hornet 114.21
5. S. Stump .....Coffield-Hornet 114.21
6. R. Stephens .....McCoy-Hornet 112.64
7. J. Wetzell .....McCoy-McCoy 112.35
8. S. Sapp .....McCoy-Hornet 111.80
9. R. Brooks .....Mathews-Hornet ..111.80
10. F. Mathews .....Coffield-Hornet ...111.11
11. C. Meyer .....Mathews-Hornet ..111.11
12. E. Stump .....Borden-Hornet 110.42
13. C. Reschke .....McCoy-McCoy 109.35
14. M. Knell .....Coffield-Hornet ...106.50
15. R. Oliver .....Special-Hornet 103.68
16. J. Woytos .....McCoy-Hornet 103.32
17. B. Wassi .....Special-Hornet 102.97
18. R. Oliver .....McCoy-Hornet 102.62
19. F. Hamer .....McCoy-Hornet 101.63
20. H. Laflamme ....Mathews-Hornet ..100.55
21. O. Cline .....Own-Hornet 97.21

KANSAS CITY FLASH

THE Kansas City Model Race Car Club is a new and promising organization having held its first meeting on June 2nd. At their second meeting, plans were made for a new and fast track and four weeks later, "Hutch" Hutchinson made the first trial run with his new Dooling-McCoy. Results showed the track to be perfectly level with a surface rough enough for maximum traction; size—1/24th mile. At present they are running with center post at track level, plans now being made for an electric timer for early installation.

The Club now has 14 members with each meeting boosting this by one or two more, all soon to be members of AMRCA. All fans traveling through Kansas City, wishing to limber up their "iron", have a standing invitation to do so by contacting their President, John DeLuca, Rockhill Garage, 4815 Locust, Kansas City, Mo. When everything is in tiptop shape, including a timer shack, the boys are inviting other clubs for competition. The Wichita and Salina Clubs will soon be hearing from these fellows and other clubs in that vicinity should take their cue and write to their Secretary, V. L. Baldwin, Box 112, Overland Park, Kansas.

ROARIN' CIRCLE RACERS

YEP, things are *really* moving down South! Just received word that the Roaring Circle Racers Club of Columbia, S. C. has completed their 1/16 mile cable track, started last October when the club had only 15 members. The track is made of concrete, reinforced with steel rods, and has no seams. The present crash wall is made of steel strips 1½" wide and spaced 1½" apart, 24" high and supported by steel uprights.

The grounds are lighted for night runs and during the hot weather, cars are run every Wednesday night. On the last Sunday of each month speed contests are held, representatives from many states participating. One of the local boys, Joe Hare, holds the track speed record. He has an Invader powered by a Dooling and on the initial run turned in 107.14, that's not bad for the *first* time out!

A cordial invitation has been extended to members of other Clubs who may pass through Columbia to stop and visit the track at any time. Contact H. D. Merritt by phone (2-8315) and he will show you the famous Southern Hospitality.

Here's a good shot of the smooth running surface and new crash wall at the Columbia, S. C., track. Those are steel slats on steel uprights two feet high. Those boys aren't taking chances!

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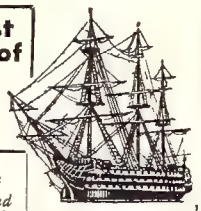

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TEXAS ORGANIZES

THE boys down Austin, Texas way recently got together and formed the Austin Miniature Race Car Association. There are 25 active charter and 3 honorary members. Meetings are held the second Friday of each month.

At the present, the boys are working out on the City tennis courts, but plans are underway to build a 1/20th mile cable track now and a rail track in the spring. The tracks are to be equipped with the latest electric timers and recording systems.

NEW TRACK IN L. A.

By STUR ALESHIRE

At long last—The Promised Land! The miniature Race Car fans of Los Angeles, the city of biggest and bests, now have a track to race on. It's located on the Model Airport in nearby Gardena, but we still claim it. So far we have no power, no water and no pits BUT we do have a crash fence and a running surface! The famine is partially over.

Early last spring the L. A. Aero Modelers, through the efforts of Ray Acord and Harry Royce, donated the use of their land for a track. By holding a raffle for a car donated by Dooling Bros., selling advertising on the crash wall and some plain, fancy mooching, finances were arranged and the track started. The track was open for running on August 16th due to the efforts of a few of the more enthusiastic fans.

Racing is planned for each Sunday. Fellows are asked to come out at 9 A.M. prepared to work for a couple of hours before actual racing starts. In this way, the track will soon be in first-class shape.

As soon as the track is completed, I.M.R.C.A. and A.M.R.C.A. sanctioned races will be held throughout the year. It will also be available for other clubs in the district.

120 PLUS GETS FOURTH PLACE

By JOHN MAYFIELD

Although the attendance was a little below the usual number for a meet at Waukegan, Illinois, on September 7th, the speeds turned in broke all records in the spur gear class.

The first spur on the track was Warren Borden. He shattered his own ¼ mile record and raised it to 124.14 only to be beaten by Red Davis of Harvey who hit *125.18* with his Borden car and Dooling motor. Borden raised his ½ mile record to 124.83 and Davis ran the mile in 125.45, both boys have identical cars. Borden then ran a quarter at 125.36. Glenn Matthews was crowding the boys a little and for a while held the ½ mile record at 122.71. Earl Stump of Harvey, Ill. ran 120.65 in the half, and this was *only* fourth highest speed for the day!

John Mayfield challenged Ed Leonard and Hap Wyckoff to a 5 mile race, which Leonard won in 5 minutes and .09 seconds.

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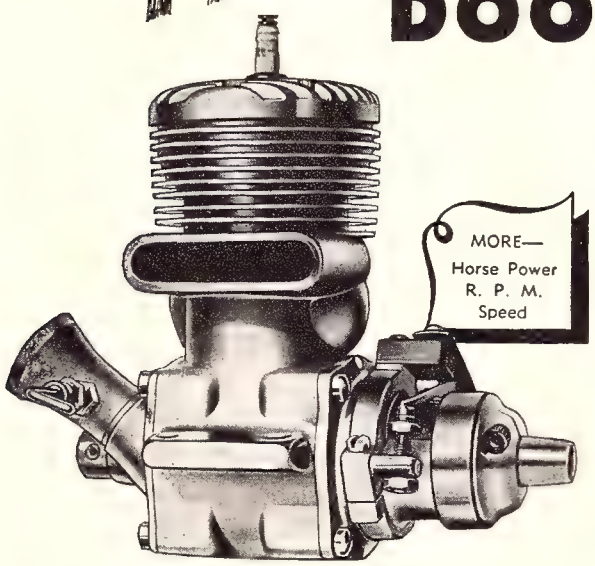

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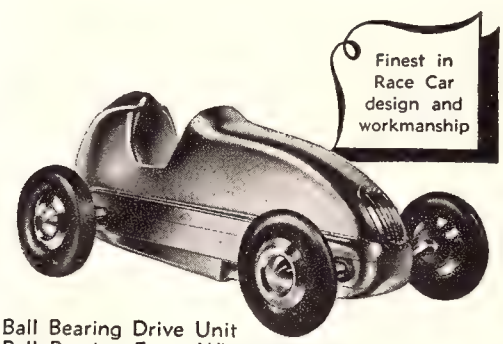

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Mayfield was eliminated on the 60th lap with broken points and Wyckoff was out at 15 laps with rear end trouble. There was no time out for refueling or calling time in after a pit stop. The boys got a bang out of this and we will be seeing more of this type of racing in the Mid-West. Following are the complete results:

SPUR GEAR

1. M. Davis	Borden-Dooling	125.45
2. W. Borden	Borden-Dooling	125.36
3. G. Matthews	Coffield-Own	122.71
4. E. Stump	Borden-Hornet	120.65
5. V. Paul	Borden-Hornet	116.58
6. P. Fleener	Borden-Hornet	115.75
7. F. Mathews	Coffield-Own	114.57
8. G. Meyer	V Car-Hornet	111.11
9. J. Carlson	V Car-Hornet	107.91
10. J. Woytas	McCoy-Hornet	104.65
11. H. Laflamme	V Car-Hornet	101.80

W. Borden	Attempt at 1 mile record	125.36
V. Paul	" " ¼ " "	116.58
M. Davis	" " ¼ " "	125.18
W. Borden	" " ¼ " "	125.36

PROTO CLASS

1. M. Davis	Pacemaker-Hornet	110.63
2. Gus Meyer	Own-Hornet	109.62
3. J. Kern	Pacemaker-Hornet	107.39
4. A. Demiere	Johnson-Hornet	106.56
5. H. Wyckoff	Own-Dooling	105.14
6. E. Leonard	Pacemaker-Hornet	104.77
7. J. Mayfield	Own-Hornet	104.46
8. J. Carlson	Own-Hornet	102.27
9. P. Fleener	Pacemaker-Hornet	101.12
10. C. Meyer	Own-Dooling	99.00
11. E. Stump	Own-Hornet	97.19
12. H. Laflamme	Pacemaker-Hornet	87.08

PRESENT SPEED RECORDS

THIS is your standing box score representing AMRCA speed records as of September 15, 1947. These are the present existing records as reported to this office, showing highest speeds established on both cable and rail tracks, type car and engine used, together with location and date of established record:

1/16 MILE CABLE TRACK

SPUR (¼ Mile): Dick McCoy, San Francisco, July 7, 1946—116.73 MPH (McCoy Car, McCoy Engine)

PROTO (¼ Mile): Howard Lee, San Francisco, July 7, 1946—108.95 MPH (Own Design Car, Hornet Engine)

STREAMLINE (¼ Mile): Jim Gilmore, San Francisco, July 7, 1946—103.32 MPH (Special, Hornet Engine)

1/24th MILE CABLE TRACK

SPUR (¼ Mile): Warren Borden, Waukegan, July 7, 1947—121.64 MPH (V-Car-Hornet Engine

SPUR (½ Mile): Warren Borden, Waukegan, July 6, 1947—120.89 MPH (V-Car, Hornet Engine)

SPUR (1 Mile): George Coffield, Rock Island, Ill., Aug. 16, 1947—118.65 MPH (Coffield-Hornet)

PROTO (¼ Mile): Frank Robertson, Houston, Aug. 17, 1947—116.12 MPH (Own-Dooling)

PROTO (½ Mile): Art Poore, Inglewood, Cal., Aug. 15, 1947—112.92 MPH (Own-Dooling)

PROTO (1 Mile): Art Poore, Inglewood, Cal., Aug. 17, 1947—112.25 MPH (Own-Dooling)

STREAMLINER (¼ Mile): Jim Gilmore, Detroit, Aug. 3, 1946—104.98 MPH (Special, Hornet Engine)

STREAMLINER (½ Mile): Jim Gilmore, Detroit, Aug. 1, 1946—102.50 MPH (Special, Hornet Engine)

STREAMLINER (1 Mile): Jim Gilmore, Detroit, Aug. 2, 1946—100.44 MPH (Special, Hornet Engine)

1/16th MILE RAIL TRACK

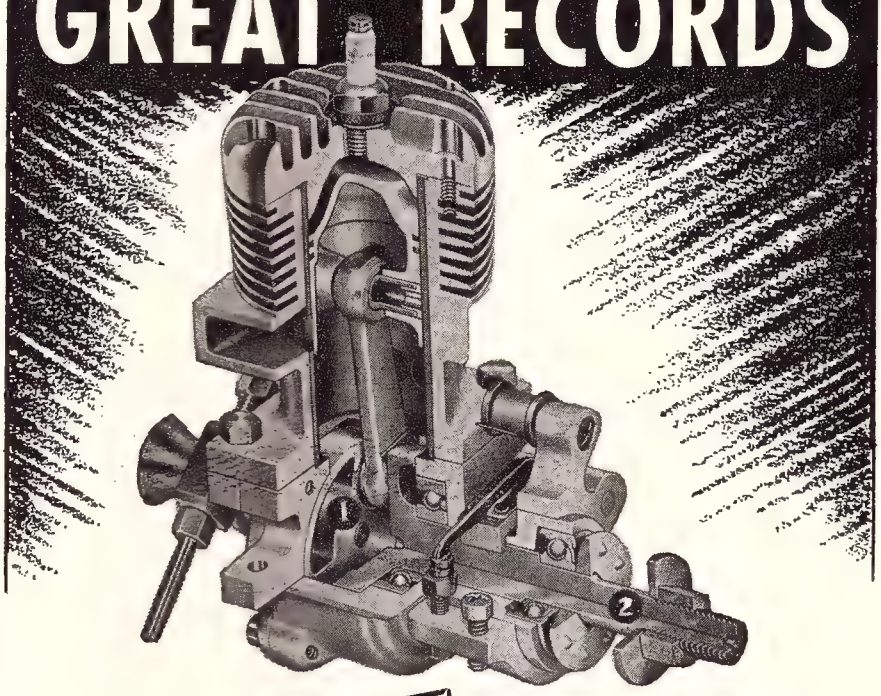
STREAMLINE: W. Weller, Chicago, Aug. 25, 1946—79.30 MPH (Hornet Engine Used)

PROTO: Elmer Wheeler, Chicago, Aug. 9, 1947—81.30 MPH (McCoy Special—McCoy Engine)

1/12th MILE RAIL TRACK

PROTO (¼ Mile): Dick McCoy, Fresno, Calif., July 6, 1947—95.13 MPH (Own Car, McCoy Engine)

Good Reasons For GREAT RECORDS



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These are a few of many HORNET records

● Spur Gear Record, Waukegan, Ill., Sept. 1, John Crossan, V car Hornet powered, 118.27; Dale Martel, Proto Hornet powered, 113.21; Loose Memorial, Fred Luning, Spur Gear Hornet powered, 118.73; W. T. Thomas, Jr., New Spur Gear Record, Own Car, Hornet powered, at Eustis, Florida, 120.32.

● Speed Boats: Joe May, Detroit, Mich., July 4-6, 1946, new world record in Class D and E, speed 65.53 m.p.h., winning Gar Wood trophy and Model Craftsman plaque.

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NEW RECORDS SET AT DETROIT

By BOB GRAHAM

THE Detroit Model Power Boat Club ran their annual three day race on July 4, 5 & 6. Whenever I attend one of these races, I see world records broken and the boys didn't disappoint me this time! Rupert (Harry) Terry of Detroit set a new Class A Gas world record of 58.70 MPH. He used an engine both designed and built by himself. This design is seldom seen, an Aspin (conical valve) four cycle job. The problem of friction and seal were solved by the use of ball and roller bearings, five being used on the valve alone. On the entire boat, twenty-three such bearings were used. The engine is 48 c.c. capacity and develops about four h.p. at 13,000 r.p.m., and is also equipped with a home-made magneto. In trial runs the boat has turned 65 m.p.h.

Mike Succarde always thrills the spectators (*and contestants*) with his Class A steam boat and he set a new Class A Steam world record of 60.26 m.p.h. Mike is firmly resolved to prove his contention that steam has almost unlimited possibilities in speed, and is doing a swell job of keeping right up there with the gas boats. (*We hear Mike is cooking on all burners with a new flame named Zelma.*)

Ernie St. Antoine of Windsor, Ontario, holding the world's Class C speed record, branched out into Class B and established a new Detroit Club record of 67.16 m.p.h. This is just about a mile per hour under the present Class B world's record held by Ed Kalfus of the New York Club. Ernie used a two-cylinder, flat twin 30 c.c. two-cycle engine of his own design and make. A gear box is used with the propeller turning three revs to every two of the engine. A home-made magneto is also used on this engine. Aside from the record, Ernie won first place in Class B with 64.28 m.p.h., the Mack Park trophy (*for winner on the third day of the ten fastest boats from the previous two days*) with his Class B boat at 67.16 m.p.h. and first place in Class C at 54 m.p.h.

Rupert Terry won first place in Class A Gas with his record making run of 58.70 m.p.h. and Mike Succarde won first spot in Class A Steam with his record run of 60.26. Joe May took over top position in Class D with his magneto equipped hornet powered boat. His job made 67.50 m.p.h., also winning the Gar Wood trophy for highest speed of the race. Joe also holds the world's Class D record of 70 plus m.p.h. which he set last September at a Detroit race.

In Class E, Harold Wilkin and Ed Baronowski tied for first at 64.90 m.p.h., but in the rerun Wilkin took over at 64.28 m.p.h. Ed made 58.19 which gave him second position. Strangely, R. Palmer of East Chicago, Indiana, won third place with the identical speed of 58.19 m.p.h. Harold Wilkin also holds the world's record in Class E with a speed of 68.87 m.p.h., which his boat made last September.

Herb Zieman took second in Class A at 48.50 m.p.h., using an interesting four-cycle engine of 47 c.c. capacity fitted with a supercharger running at four times engine speed. Engine was both designed and built by Zieman.

Charles Verhaeghe was kept busy running his boats and attending to official duties. He won third in Class A at 44.70 m.p.h. He was former holder of Class A record at 57 m.p.h. which was broken by Terry. Charlie also won second in Class C at 41.41 m.p.h. and third in Class D at 65.33 m.p.h.

Barney Kiewicz won second in Class B with 54.88 m.p.h. This same boat and engine made only 32.91 m.p.h. at last year's race. The secret—he changed over to *surface propelling!*

Third spot in Class B was taken over by R Tesch at 34.26 m.p.h. He also ran a Class A boat at 38.79 m.p.h. placing fifth. Bob Lemp, one of the club live wires, was busy with official duties and running his Class A boat. He made 42.18 for fourth position; last year he was in second place.

Thirty-one entries featured the race, representing Detroit, Lansing and Flint, Mich.; Toronto and Windsor, Canada; East Chicago, Ind. Two men entered steam powered jobs and one jet propelled entry. With this latter, Stan Landell had starting trouble. Magnetos were much in evidence, more so than last year. These were used by Tate, Baxmann, May, Terry, St. Antoine, Toutant, Mancinelli and Pinkerton. An excellent job of timing the boats and feeding the hungry contestants was done by the ladies of the club. On the evening of July 5th, all contestants gathered at Bob Lemp's house to view color movies of last year's race and some eastern races shown by Bob Graham.

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MODEL CRAFTSMAN RAMSEY, NEW JERSEY

"JES RAMBLIN"

By SENATOR CLAGHORN

Alias—Fran Brennan

Well here I am back in the saddle after a little jaunt around my neck of the woods. Thought some of you fellows would like to know just how things down South are lining up in the way of tracks. Believe me, we are really getting started in a *big* way. It won't be long from now until we will have a nice circuit started and you "snow diggers" won't have to keep your cars in moth balls. Come on down South this winter and enjoy the balmy sunshine. No rain, No snow, No sleet—ahem!

Met Frank Robertson of Houston, Texas at Dallas last Sunday and visited with the Dallas boys for the day. They have a swell new track in Kiest Park in Oak Cliff. Those boys really go all out together and get the job done. Wouldn't it be swell if all clubs could get the full support of its members. We would really see activity in this great hobby. Incidentally, Mr. Cecil Darnell (a swell guy), of 2230 Lovers Lane, Dallas, would like to hear from any fellows when down Dallas way. He tells me the track is open and welcome to all comers at any time.

We just couldn't pass up that rival city of Fort Worth so over we drove to our good friend, W. P. Ramsey (Smilin' Jack) 3000 W. Vickery. Here we learned that a track had been in for a long time and right now Smilin' Jack has plans underway to complete another one this Fall. Jack has a little hobby center of his own on Clener Lane Dr.—a hobby store, race track, airplane field and a children's train. By spring this park will be humming with activities for the hobby enthusiasts. *Good Luck* Jack, we are all behind you.

Lo and Behold, here I get word from Mr. J. B. Buffington of Texarkana, U. S. A. that a new track is in operation. From the picture he sent, the track looks like a honey. J. B. reports that there are 5 car owners already and a very nice club in the making. Seven of us are driving up there this Sunday to help the boys along. We are tickled pink too, its only 165 miles from our Monroe track.

Word comes from Shreveport, Baton Rouge and Jackson, Miss. that tracks are in the making. That sure makes the Senator happy. Look out boys, the South is a little slow in getting started, but we will soon be the ones to keep your eyes on. In fact Frank Robertson, that "Houston Hurricane" with his 116.13 Proto, wants to enter in the spur gear class this Nov. 11 at Monroe's Second Annual Classic. He feels definitely sure he will have a proto that will break the present spur gear speed record. Frank has already asked that he be allowed to do just that! Don't see why he can't, there's no ruling against it. Frankly, I believe he can do it too, let's wish him luck.

Well, I'm still waiting for my trophy from the Nationals. Hope it gets here before next year's meet! Somebody missed the boat on getting those trophies in time!

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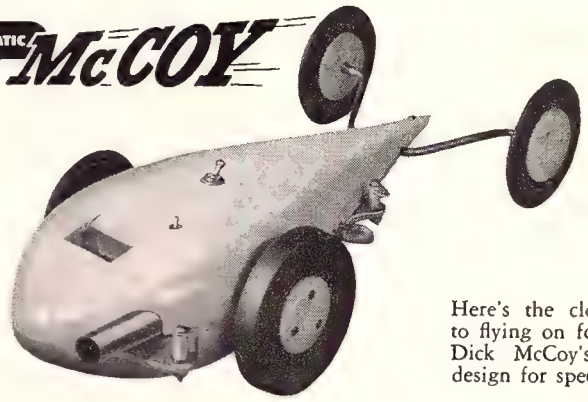

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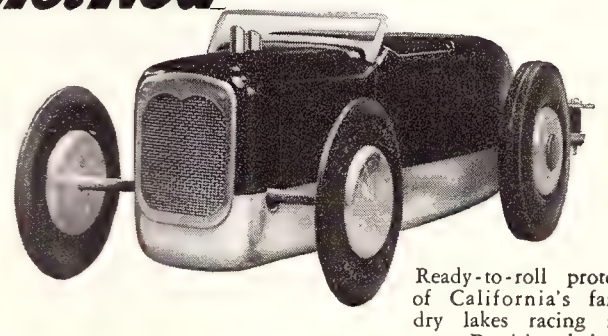

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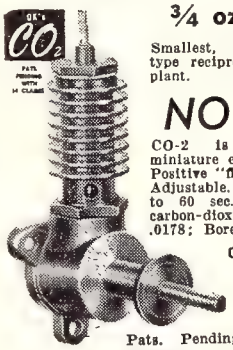

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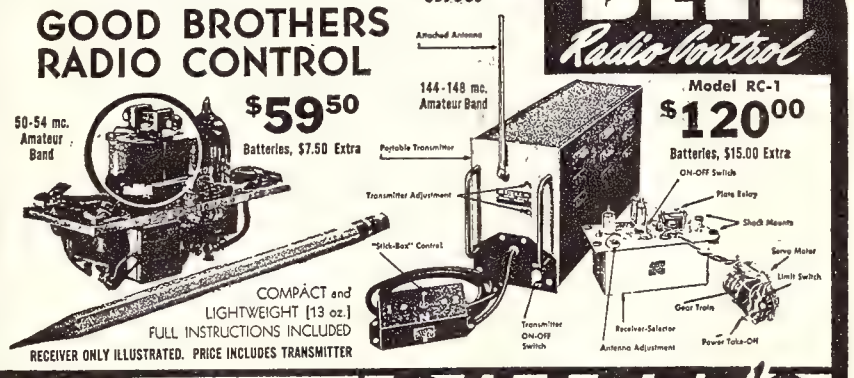

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SECOND ANNUAL MONROE CLASSIC

The Miniature Race Car Club of Monroe, Louisiana, announce their Second Annual Championship Classic to be held at Lakeside Country Club on Armistice Day, November 11, 1947.

Originally this race was scheduled for January first but was changed because of uncertain weather conditions at that time of year.

There will be three heats in both the Proto and Spur Gear Classes, first heat to start promptly at 9 A. M. The track will be open for trial runs on Nov. 9 and 10, no trial runs allowed on the day of the meet. The track will be illuminated for night running.

This classic has been sanctioned by the AMRCA and is being sponsored by La Miniature Race Car Club of Monroe. There will be plenty of hotel accommodations, for last minute reservations contact Fran Brennan, care of Brennan Utilities. Proxy Cars should also be sent to Fran Brennan, no alterations will be made unless special instructions are given. Entry fee, $3.00 per car.

Here's one race you won't want to miss, with that Monroe bunch you can have a good time. Take a crack at those many beautiful trophies, they are going to be extraordinary!

ARMCA SANCTIONED MEETS FOR 1947 SEASON

Oct. 5.	Detroit, Mich.
Oct. 11, 12.	San Francisco, California
Oct. 19.	Long Island, N. Y.
Nov. 11.	Monroe, La. (2nd Annual Classic)

Above dates and locations are subject to change by request of Clubs concerned.

LONG BEACH IS GEARING UP

THE Airport M. R. C. A. of Long Beach, Cal. is just beginning to hit its stride! Meets are scheduled for the first Sunday of each month and there will be points and ribbons for the first five places in Spur, Proto and Hot Rod classes. High point winner at the end of three months will receive a trophy. The club is striving for 100% turnout for each regular meet held at their track located at Bellflower Airport.

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BB4	.078	.250	.093	1.50	1.40	1.30
BB1	1/8	3/8	5/32	.35	.30	.25
BB5	3/16	1/2	5/32	.45	.40	.35
BB6	1/4	5/8	3/16	.55	.50	.45
BB7	3/8	7/8	1/4	.65	.60	.55
BB9	5/8	1⅜	3/8	.80	.70	.65
BR10	1/4	3/4	9/32	.60	.55	.50

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GO ALL THE WAY JOIN THE N.M.R.A.

MODELMAKER POWER TOOLS

(Continued from page 19)

generally they are also quite satisfactory.

Split phase motors for single phase alternating current do not have sufficient starting torque for satisfactory use with a lathe.

A number of tools and attachments can be built on the lathe itself, but a few of the most essential ones should be purchased at the start. Lathe chucks are a necessity and if but one is purchased, it had best be a four-jaw independent chuck with reversible jaws. Much more work can be accomplished with this type chuck than with the three-jaw scroll type, but if you can afford it, by all means include both in your initial equipment. The three-jaw will be a great convenience in rapidly chucking round rods and other circular work. A drill chuck with taper shank for mounting in the tailstock will be found most useful for drilling operations in the lathe. This had best be a key type chuck of half inch capacity.

Tool holders are a necessity and it will be well to purchase three, a left hand off-set, a right hand off-set and a straight tool holder along with a supply of tool bits ready ground for various types of work. Four lathe dogs in graduated sizes will about complete the necessary items. With this equipment on hand, a great amount of lathe work can be accomplished.

As skill in running the lathe is acquired, many tools and attachments can be built on the lathe itself and gradually added to the shop's equipment. Wood patterns can be turned for face plates and iron castings procured from these can be machined on the lathe. Boring bars and their sturdy holders as well as a number of other tools can be machined from cold rolled steel bar stock. The steady rest, drill pads, thread dial indicator, chuck backs and even the complete collet attachment, the milling attachment and many other accessories can be turned out on the lathe quite inexpensively and, if you like tool making, a great deal of pleasure and satisfaction can be had as well.

With the lathe set up and properly leveled, it should be thoroughly oiled before running. Use the kind and grade of oil specified by the manufacturer or a good grade of S. A. E. #10 engine oil. While the lathe is new, it is best to oil it frequently and when well broken in, it should be oiled once each day or each time it is used. Until the main bearings are well broken in, the lathe spindle should not be run over 500 rpm. Through this period the main bearings should be watched to avoid over heating.

With the lathe set up, accurately levelled and well oiled, we will continue in next month's article its operation including more about lathe tools, sharpening tool-bits, centering work to be held between centers and other operations to help the beginner get well under way.

CORRECTION

The photographs in the RAIL ADAPTER article appearing in the August issue were made by Frank Post. Credit was inadvertently omitted.

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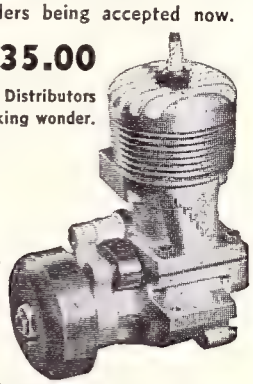

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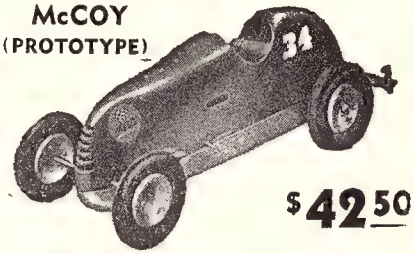

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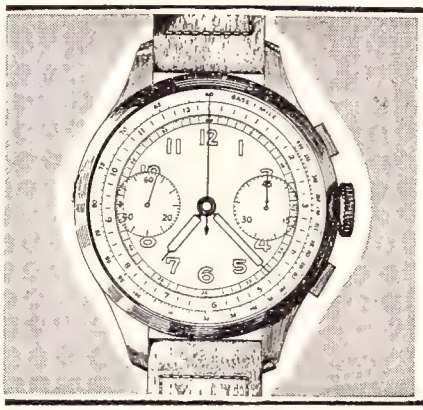

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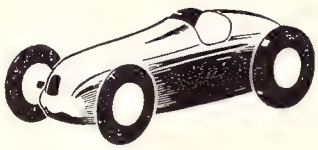

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Low-Wheeled 4-6-2 Pacific	June thru Nov. '44
Semi-Diesel Railcar	Aug. '44
The "999" in HO Gauge	Sept., Oct. '44
1st Prize in HO Layout	Oct. '44
2nd Prize in HO Layout	Nov. '44
Open-End Gondola Car	Dec. '44
HO Draft Gear	Dec. '44
Three HO Layouts	Feb. '45
C & O Mountain Type Locomotive	Mar. '45
Laying Out HO Pikes	Apr., May '45
Cement Hopper Car	June '45
Consolidation and Tender	June, July '45
"S P" A-6 Atlantic	Aug. thru Nov. '45
Pennsy T-1 Locomotive	Sept., Oct. '45
Powerful Electric Engine GG-1	Oct., Nov. '45
6000 N.Y.C. Loco & Tender	Nov. '45
Central Vt. Loco.	Jan. '46
C & O Hopper Car	Jan. '46
Southern Pacific 4-4-0	Mar. thru June '46
Build a Steam Shovel	Nov. '46
N & W Hopper Car	Nov. '46
Roundhouse	Mar. '47

O GAUGE

Motorized Wrecking Crane	Sept. '44
Mother Hubbard 4-4-2	July '46
Suburban Double Ender	Sept. '46
Worm Drives	Nov. '46
Ten-Wheeler Loco	Feb. '47

OO GAUGE

Six Passenger Cars	Nov. '44
War-Time Car Building, Express Reefer	Apr. '45
Double-Deck Sleepers	Apr. '45

PROTOTYPE DIMENSION PLANS

Railroad Station (Plans in HO)	July '44
Coal Breaker	Nov. '44
"Old Time" Railroad Station	Dec. '44
Reading Camelbacks	June '45
Burlington's "Vista-Dome" Observation Car	Nov. '45
U.P. 800 Class Loco.	Dec. '45
Erie Caboose	Jan. '46
C. & N.W. Pacific 4-6-2	Feb. '46
B. & O. Mallets	June '46
Penn E-6 Atlantic	Aug. '46
Loco Traveling Crane (all gauge)	Oct. '46

RAILROAD MISCELLANEOUS

Laying Out HO Pikes	April, May, July, '45
A Model Saw Mill	July, Aug. '45
Bridge Warnings	Nov. '45
HO Trestle	Dec. '45
Simple Crossing Gate	Dec. '45
Standard Brick Signal Tower	Jan. '46
How to Build Tunnels	Feb. '46
Bridges	Mar. '46
HO Coal Tipple	Apr. '46
A Terminal Throat	May '46
A Big Interurban Layout	June '46
V & T Passenger Station	July '46
Track & Scenery Foundation	Aug. '46
Three-Way Switch	Aug. '46
A Simple Interlocking Plant	Sept., Oct. '46
B. & O. Coal Tower	Sept. '46
Speaking of Water Falls	Oct. '46
Does Your Layout Have a Church?	Oct. '46
Two Rail Signals	Dec. '46
Where to Put your Feeders	Dec. '46
Master Control Board	Apr. '47
Interlocking Without Relays	May '47

TROLLEYS

Model Cattle Car (Prototype Dimensions)	July '44
Shooting Trouble on HO Motor Trucks	Oct. '44
Trolley Wirework	Nov. '44
Interurban Depot & Substation	Feb. '45
Hudson & Manhattan Tube Cars	Mar. '45
Interurban Mail	Apr. '45
"Open Air" Elevated Railways	June '45
Yards, Barns & Terminals	July '45
Trolley Work Cars	Aug. '45
Trolley Snow Plows	Nov. '45
Trolley Front Ends	Dec. '45
Trolley Freight Service	Jan., Feb. '46
Power for Your Trolley	Mar. '46
Double Cab Work Car	Apr. '46
Pacific Electric Car (O Gauge)	May '46
Modeling Traction Interurbans	Nov. '46
Small Interurban Cars	Dec. '46
Interurban Diner	Mar. '47
Narrow Gauge Coaches	Apr. '47

LIVE STEAM

Valve Gears, Gear Frames & Boiler Saddles (¾" sc.)	July 44
Boiler Injector & Lubricator (½" sc.)	Aug. '44
Engine Pilot, Pilot Beam, Water Gauge (½" sc.)	Sept. '44
Single Cylinder, Steam driven Feed-Water Pump (½" sc.)	Oct. '44
Home-Made Cylinder Cocks (½" sc.)	Oct. '44
Atlantic Live Steamer, ¾" scale	Nov., Dec. '44, Jan., Feb., Mar., May, June, July '45
½ H. P. Horizontal Steam Engine	Feb., Mar., May '45
Boiler Feed-Water Pump (½" sc.)	Feb. '45
Advantages of Inch Scale	Mar. '45
Cab, Coupler, Drawbar Pocket, Bell, Dome (½" sc.)	Apr. '45
Assembly & Connections (½" sc.)	June '45
Steam Driven Water Pump	Oct., Dec., '45, Feb. '46
Stationary Steam Engine	July thru Oct. '46

TINPLATE & SCALE CONVERSION

Hi-Rail-Cantilever & Steel Arch Bridges	July '44
Suspension Bridges	Aug. '44
Adding Human Interest to Your Layout	Sept. '44
Wherefore "Hi-Rail"?	Oct. '44
Flag Stops	Nov. '44
"Combination" Stations	Feb. '45
Smooth Scaling	Mar. '45
Improved Tin Type Trucks	July '45
Realistic Tinplate Cars	Dec. '45, Jan. '46
Tin-Types "Trued to Life"	June '45
Along the Tinplate Track	Monthly Feature

AIRPLANES

"Tiger Meat" Class C Guide Liner (Millet & DeBolt)	Oct. '45
Dizzy "B", U Control (Greene)	Nov. '45
"Butch", Class C Guide Liner (DeBolt)	Dec. '45
"Moldy Molecule", Class B & C Guide Liner (DeBolt & Thomasian)	Jan. '46
"Thunderwin", U Control (McElwee)	May '46
The "Atomic", U Control (Shulman)	June '46
"Pirate", Control Liner (McGovern)	Sept. '46
Your Engines (Class A & B Survey)	Aug. '46
Your Engines (Class C Survey)	Sept. '46
Engine Maintenance & Operation	Sept. '46

ELECTRICAL ARTICLES

Home-Made Telephone	July, Aug. '44
Battery Charging Hints	Aug. '44
Switch Motors from Doorbells	Oct. '44
Polarity Indicator	Oct. '44
A. C. Power Supply	Nov. '44
Radio Control for Model Layouts	Dec. '44
Crossing Gates, Electrically Controlled	Dec. '44
Wind Your Own Magnets	Dec. '44
Home-Made Rheostats	June '45
"Per-Mag" Switch Machine	Aug. '45
O Gauge Motors	Oct. thru Dec. '45
Universal Wiring Circuit	Apr. '46
Train Control Rheostat	June '46
Lighting Your Trains & Buildings	May '46
Electricity, "What is it?"	Jan. '47

RACE CARS

Molding Car Bodies	July '44
Getting Ready for Racing	Mar. '45
Building a Model Race Car	May thru Nov. '45
How to Get More Speed	May '45
Trouble Shooting	Feb. '46
What Type Racing Car?	Mar. '46
Test Car #1	Apr. '46
Test Car #2	July '46
Rail Track Construction	May '46
Cable Track Construction	June '46
Wire Spoked Wheels	Nov. '46
Test Car #3	Jan. '47
Spark Setting Fixture	Feb. '47

BOATS

Magneto for Boat Engines	July '44
"Misfily", Prize-Winning Model Speed Boat	May '45

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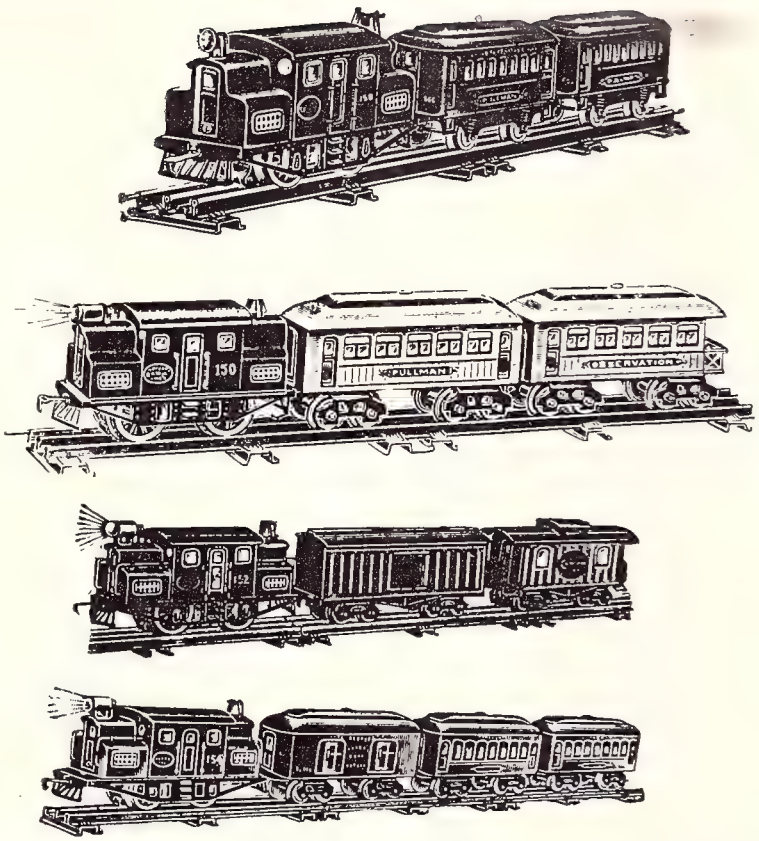

Typical Lionel 0 gauge trains of the early 1920's. Reading downward, the locomotives are the 158, 150, 152 and 154 and pictured with them are a variety of typical cars of the period.

ALONG THE TINPLATE TRACK

(*Continued from page 17*)

as an 0-6-0 and as an 0-4-0, it was thought for some time that one number properly belonged to each wheel arrangement, likely the 34 to the 0-6-0 and the 33 to the 0-4-0. The matter was further confused by the fact that some of the early 0-4-0 models have cast iron wheels, and some painted die-cast wheels, although a "34" is known with unpainted die-cast wheels.

Actually, there were never two specific locos. The 33 and the 34 are both the same locomotive, no matter what the style of wheels. The early models came lettered both 33 and 34, as well, in the 0-6-0, as "1910". The #1910 train outfit had consisted of two gondola cars and a #1910 locomotive. In 1912 the same set number was retained and the new style body locomotive used. A new set, with the #35 and #36 passenger cars was brought out. The set number was 34. When the #34 locomotive was sold separately, it was

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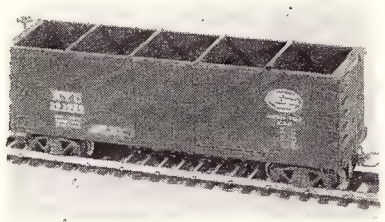

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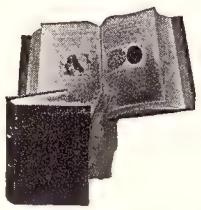

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sold as "Outfit No. 33". Thus, some locomotives were lettered "1910", some "34" and some "33", but the locomotive alone was the #33, and as the number of complete sets in the line was increased, set numbers were no longer applied to locomotives, but each set listed as comprising one of the individually numbered locomotives, in the case of the electric types, 33, 38, 42, 53 or 54. And, incidently, after 1912, except for the 53, all of the locomotives were lettered for the New York Central, at first in ordinary lettering, but shortly with the road's herald.

There was no substantial change in the 42 or 54 until they were changed to the Twin-Motor design in 1921. The 53, however, was continually being altered. The 1911 Specials and the first 53's had had eight small solid iron wheels. In 1913 and 1914, eight small spoked wheels were used, and in 1915 an entirely new chassis with four large spoked wheels and connecting rods, of the size employed on the 38 and 42 was installed in the old style body of the 53. The 53 was always made solely in maroon, as far as is known, to match the maroon 180 series 12½" passenger cars. Finally, in 1920, to maintain an electric type set in the line with these passenger cars, maroon 38's were lettered "53" and sold as the "53" that year, the old body style 53 finally being discontinued.

All of the locomotives in this series were reversible except for the 33's made prior to World War I. These hand reverses were so placed that they could be operated by a trip placed alongside the rail if desired. All of the locomotives in this series had but one headlight, except the 50. A binding post was mounted at the rear of the other models in place of a headlight for use in connection with a feed-back car lighting system.

The 42 and 54 were last cataloged in 1923, the year that the "Super Motor" was introduced. They were replaced by the then new 402 locomotive, the number of the new model obviously being derived from that of the 42, just as the new 0-4-0 of 1923, the 380 was numbered after the 38.

The 33 and 38 were still cataloged in 1924, in addition to a new locomotive, the 50. The 50, which appeared only in the 1924 catalog, was simply a 38 with two headlights, automatic couplers, and the Super Motor, in place of the old single shoe motor with iron wheels and connecting rods used in the 38. The 50 was the last new number in the old Standard gauge series, but it was not the last new model. That honor goes to the 33 with a Super Motor, which was apparently introduced and made after 1924, although never listed in the catalog. Had the 33 of 1924 had the Super Motor it most certainly would have been featured in the description. It is possible that 50's were also manufactured after 1924, although not cataloged. In installing the Super Motor in the small 33 cab, it was necessary to cut away a portion of the corners of the motor frame.

The story of the O gauge models is somewhat less complex. Lionel introduced O gauge in 1915, with their 700 series, made in 1915 and 1916 only. The earlier 700 models have cast iron wheels. In 1917 the 700 series became the 150 series, the 150, 152, 154, all 0-4-0's, and the 156, a 4-4-4. The Lionel armored locomotive which came out in 1917, although numbered 203, also properly belongs to the 150 series. The 154 and 156 were reversible.

Later additions to the 150 series were the 58 in 1919, the rare 156X in 1922, and the 153 in 1924. The 158 was a 150 with a dummy instead of a working headlight. The 156X, which was an 0-4-0 version of the 156 was first simply called the "156 Four-Wheel Reversible Locomotive" and was not listed separately as the 156X until 1923. The 153 was a 152 with a reverse switch.

There are minor variations in these locomotives, the most important being in the 154 which was made with both square and rounded ends on the cab roof, and with other important variations in the cab and frame. The 152 and 153 also present a change from a round wire handrail to a stamped metal handrail. These locomotives were made in an extensive range of colors, which specialists have endeavored to record in detail. Occasionally rare specimens stamped with the wrong number turn up, as a 150 lettered "153".

Just as the coming of the Super Motor spelt finis for the old series in Standard gauge, so did the introduction of the newer 250 series of electric type locomotives in O gauge sound the knell for the 150's. The coming of the 253, 254 and 256 in 1924 cut down the 150's to the 150, 152, 153 and 156X. The latter was replaced by the 253 in 1925. Only the 152 remained in 1926 and 1927, and in the latter year it was not listed separately and was sold in only one set, with its old style gondola car and caboose, which also vanished from the catalog after that year. It is with some sadness that that last catalog entry is viewed, for it marked the end of a very definite era, an era marked in solid merit, mechanical perfection, strong, clean design, and lack of frills.

It is interesting to speculate that perhaps it was these frills, the over-excess of brass plates and decorations, which was partly responsible for the vanishing of the electric types from the lines of the tinplate manufacturers in the mid-1930's, a trend only now starting to be reversed. Somehow the modern clean-cut GG1 model seems more akin to the similarly chaste and attractive 150's and their Standard gauge counterparts, than to the intervening 250 series.

The 250's had their place, of course, and are now secure in their own historical position. They too are growing old now, and somewhat scarcer, and are attracting the attention of the seekers after color variations and minor varieties and changes.

B & M ATLANTIC

(Continued from page 7)

it in place and then file the top edge of the gutter until it is about 3/32" wide. This completes the cab and it can now be soldered in place on the firebox.

Mount the boiler on the loco chassis with the long 10-32 screw through the stack and smokebox. This should hold the boiler level and in line with the chassis. If not, place small blocks of wood under the firebox to level it up. When this is done fasten the completed cab to the rear end of the loco chassis with two 2-56 screws as shown on the drawing. Check the cab to make sure that it is level and in line with the chassis and then solder it in place on the firebox. Be careful that you do not melt the solder holding on the rear dome and generator.

The running boards are made next out of 1/16" thick brass. The boards under the cab are soldered in place along the firebox. Check them to make sure that they are level before you solder them securely in place. All of these parts should be parallel with the rails when the loco is standing on the track. If not, the appearance of the finished model will be spoiled. The long running boards are lined up easily by drilling 1/16" holes through the boiler. Brass rods are inserted through these holes and left protruding out of the boiler about 7/16". The running boards are then simply rested on these rods while they are being soldered in place.

The air pump casting and tanks can now be mounted on the boiler. The tank on the side with the air pump is slightly shorter than the tank on the opposite side. The tanks are fastened to the running boards with 1/16" wide strips made out of 1/64" thick sheet brass. The air pump casting is mounted on a 1/4" wide strip of 1/32" thick sheet brass. Screw one end of the strip to the air pump casting with a 2-56 screw. The strip is then bent so that it lays flat on the boiler and holds the air pump in its correct position. A 2-56 screw is then used to fasten the strip to the boiler. Solder the joints so that the air pump casting cannot shift out of place.

All that remains now is to add the handrails and piping detail. The piping is made out of #60 wire. The handrails are 1/32" diameter brass rod. Drill holes for mounting the piping and handrails. Do not try to solder them directly to the boiler and cab. The marker light brackets are also bent to shape out of #60 wire and soldered in place in holes drilled in the boiler front.

This completes the loco. Next month I will describe the construction of the tender and the painting of the model.

TALKING LOCO

YOU have to hand it to the average modeler, he is really an ingenious individual. The latest is a "talking train," with all sound effects projected direct from the train itself. The device is manufactured by Senco Sound Equipment Corp. of Pittsburgh, Pa., J. H. McKnight is the Brass Hat.

Mr. McKnight got the "brain storm" years ago while tinkering with his "children's" Christmas trains, and has just recently perfected the sound effects. The sound is piped from a recording set to the tracks and then passed into a small speaker in the tender. A special devise filters out the usual hum.

Although sound effects in Model Railroading are not new, too few pikes have as yet incorporated it into their layouts. Authentic sounds direct from the model train itself will add an entirely new wrinkle to the hobby, and all reports show that it is going over in a big way.

Taking sound effects direct from a Pennsy engine on a regular run, all the "Squeaks and Groans" included. From left to right are: Joe Missick, George Heid and J. H. McKnight.

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VARNEY

NMRA CONVENTION

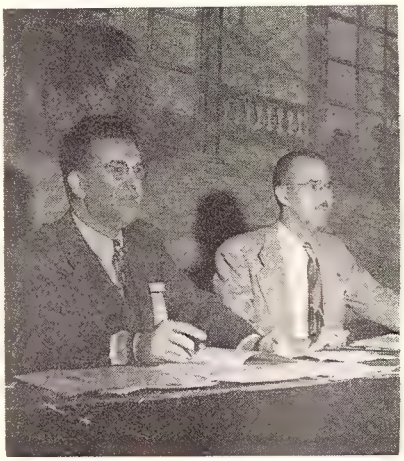
(*Continued from page 30*)

picture taking.

On Sunday the official Business meeting of the N. M. R. A. was held and many important points were discussed. At noon a barbecue luncheon was held on the shore of Oakland's beauty spot, Lake Merritt, and in the afternoon, the business meeting was continued. The following officers were nominated for 1948: President, Tex Guess of Santa Barbara, Calif.; V.-Pres., Earl Ruhland of Milwaukee, Wisc; Sec., Don Pierce of Brookfield, Mass.; and Treas., Ed Ravenscroft of Glencoe, Ill.

Taking everything into consideration, this was undoubtedly the most successful convention ever held by the NMRA. The East Bay Society members worked very hard and through their efforts, the convention was a bang-up affair.

Atlanta, Georgia, bid for the 1948 Convention, but as yet, nothing definite has been decided.



Jim Munson, Convention Chairman, and Ed Campbell, NMRA Pres., convening the Convention on Sunday morning.

WATER PUMP

(*Continued from page 10*)

parallel with the main valve piston hole.

Lay out and drill the nine holes for the holding screws (drill these #50 first) and then clamp the chest to the steam cylinder port face and drill through into the port face for the holding screws. It might be well to first drill the exhaust port in the cylinder port face as shown. Square this port up with a small file, then make a block with projections on it. Screws will do for the projections: one screw to fit in each inlet port and one in the exhaust port. Make the block the same width and length of the valve cavity, set the block in place on the port face with the screws sitting down in the ports, then set your chest over the block which it should fit fairly tight. Now tap drill the screw holes in the valve chest and into the port face, thus your holding screws will be in line. After drilling the port face, run a #43 clearance drill through the valve chest screw holes. If the locating block is not used, it would be a good idea to drill a hole into the

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Dooling Race Car with McCoy engine, extras included, $50. John Heiser, 98 Green Street, Kingston, New York.

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Two Model Race Cars. 1947 Precision Proto Devil Gear Bevel Gear Ball Bearing rear end with Hornet motor. Selling price, $135.00. Other has polished aluminum "snort" (exhaust) pipe extending to rear of car from exhaust port on side of body. Ball bearing axles, oillite bearings in gear box, and wheels. No motor. Selling price, $40.00. If both purchased, included in transaction, without cost, another car body, two spare wheels, and small motor. J. S. Monti, 1938 East Tremont Avenue, New York 62, N. Y.

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Standard Gauge locomotives, cars, in good condition. Prefer those made after 1933. Manuel Noriega, Jr., 19 Hartford St., San Francisco 14, Calif.

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PHONOGRAPH RECORDS

Phonograph records CHEAP. Catalogue. Paramount, TM-313 East Market, Wilkes-Barre, Penna.

port face, remove chest and tap this hole #2-56, reset the chest in line on the port face and draw it down with the single screw. Drill another hole into the port face, remove chest, tap and replace head and put the two screws in. Now that you have two screws holding the chest in position you can proceed with drilling the balance of the holes #50, remove the chest and tap the port face screw holes. Use the drill press to start the tap straight, pulling the drill press belt easy by hand until you get the tap started straight. Use the tap wrench to finish tapping. Take it easy when tapping so as not to break the tap.

Next we drill the steam passages from the pilot valve ports to connect the ends of the main valve piston chamber. Check the drawing and use a 1/16" drill. The drawing in the lower left hand corner of the plans in the next issue will show these steam passages dotted in. To drill the passages at angle, set the chest in the drill press. Sight the angle by eye, then use a 1/8" end mill to form a footing from which to start your drill. The drawing shows how the passages are located and how the ends are plugged with two #1-72 screws. You will also see how the exhaust passage from the pilot valve port face is drilled to connect it with the main exhaust passage.

Make up the valve chamber covers and use them as templates to drill for the #1-72 screws that will hold them. These screw holes are shown only in the end view of the valve chest, because we do not want to drill them before we have the covers made.

PILOT VALVE CHEST: This item is made out of a piece of bar stock brass 5/8" x 3/4" x 1¼" and the drawing in the upper right hand corner of next month's plans is self explanatory. The valve cavity is milled out with a ¼" end mill, the screw holes laid out, and then after being carefully located on the pilot valve port face, drill for the #2-56 screws that will hold the pilot valve chest and its cover to the pilot valve port face. You will note a 1/16" half-round groove in one side of the pilot valve chest. This should be filed in last as it must register with the 1/16" steam supply hole that runs through from the pilot valve port face to the main valve chest. See drawing of pilot valve port face on main valve chest drawing. Make up the pilot valve chest cover and use the valve chest as a template to drill the four #43 holes. The packing nuts are of 5/16" hexagon brass, and no drawing is shown except as they appear on the sectional view of the pump.

(*Continued next month*)

MODEL R. R. NEWS

(*Continued from page 4*)

play consisted of a small portable yard which only allowed back and forth operation, individual members contributed their equipment.

The club is located in famous Balboa Park and at the present time their layout is being reassembled after getting the "no standing room" orders at their former quarters, a chicken house in Bostonia, Cal. Meetings are held every Friday nite, visiting model rails are welcome at any time.

Attention, Hobbyists!

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